Contents

Number 1 January 2005

ANNOUNCEMENT

1 EDITORIAL BOARD, JANUARY 2005

4 GUEST REVIEWERS FOR *THE ANNALS OF THORACIC SURGERY*

EDITORIAL

11 **Focus on Patient Safety: Good News for the Practicing Surgeon**
Thoralf M. Sundt, MD, Jeffrey P. Brown, MEd, Paul N. Uhlig, MD, and the STS Workforce on Patient Advocacy, Communications, and Safety

THE STATISTICIAN'S PAGE

16 **Summary Receiver Operating Characteristic Curve Analysis Techniques in the Evaluation of Diagnostic Tests**
Catherine M. Jones, MBBS, BSc(Stat), and Thanos Athanasiou, MD, PhD, FETCS

ORIGINAL ARTICLES: CARDIOVASCULAR

21 **Flap Valve Double Patch Closure of Ventricular Septal Defects in Children With Increased Pulmonary Vascular Resistance**
William M. Novick, MD, Nestor Sandoval, MD, Vasiliy V. Lazorhysynets, MD, PhD, Victor Castillo, MD, Alexander Baskevitch, MD, Xiomung Mo, MD, Robert W. Reid, MD, Branko Marinovic, MD, PhD, and Thomas G. Di Sessa, MD

29 **Additional Pulmonary Blood Flow Has No Adverse Effect on Outcome After Bidirectional Cavopulmonary Anastomosis**
Pascal A. Berdat, MD, Emré Belli, MD, François Lacour-Gayet, MD, Claude Planché, MD, and Alain Serraf, MD, PhD

Invited Commentary
Roberto M. Di Donato, MD

38 **Surgical Treatment of Pulmonary Artery Sling and Tracheal Stenosis**
Andrew C. Fiore, MD, John W. Brown, MD, Thomas R. Weber, MD, and Mark W. Turrentine, MD

47 **Critical Aortic Stenosis in Early Infancy: Surgical Treatment for Residual Lesions After Balloon Dilation**
Vladimiro L. Vida, MD, Tomaso Bottio, MD, Ornella Milanesi, MD, Elena Reffo, MD, Roberta Biffanti, MD, Raffaele Bonato, MD, and Giovanni Stellin, MD

Invited Commentary
James Monro, FRCS

53 **Cardiac Transplantation in Pediatric Patients: Fifteen-Year Experience of a Single Center**
Jan Groetzner, MD, Bruno Reichart, MD, Ulrich Roemer, MD, Stefanie Reichel, MD, Rainer Kozlik-Feldmann, MD, Andreas Tiete, MD, Joerg Sachweh, MD, Heinrich Netz, MD, and Sabine Daebritz, MD

Invited Commentary
Anees J. Razzouk, MD

62 **Incidence of Heparin-Induced Thrombocytopenia and Therapeutic Strategies in Pediatric Cardiac Surgery**
Andreas Böning, MD, Torsten Morschheuser, MD, Udo Bläse, ECCP, Jens Scheewe, MD, Michael von der Brelie, MD, Ralf Grabitz, MD, PhD, and Jochen T. Cremer, MD, PhD

66 **Body Mass Index and Outcomes After Left Ventricular Assist Device Placement**
Javed Butler, MD, MPH, Renee Howser, RN, MSN, Peer M. Portner, PhD, and Richard N. Pierson III, MD

74 **White Matter Disease in Magnetic Resonance Imaging Predicts Cerebral Complications After Coronary Artery Bypass Grafting**
Paulin Andréll, MD, Christer Jensen, MD, Henrik Norrsell, MD, PhD, Olof Ekre, MD, PhD, Sven Ekholm, MD, PhD, Ulf Norrsell, MD, PhD, Tore Eliasson, MD, PhD, Clas Mannheimer, MD, PhD, and Christian Blomstrand, MD, PhD

Invited Commentary
Ola A. Selnes, PhD

81 **Reoperative Coronary Artery Bypass Grafting: Analysis of Early and Late Outcomes**
Michele Di Mauro, MD, Angela L. Iacò, MD, Marco Contini, MD, Giovanni Teodori, MD, Giuseppe Vitolla, MD, Marco Pano, MD, Gabriele Di Giammarco, MD, and Antonio M. Calafiore, MD

88 **Revascularization of Left Anterior Descending Artery With Drug-Eluting Stents: Comparison With Off-Pump Surgery**
Itzhak Herz, MD, Yaron Moshkovitz, MD, Alberto Hendler, MD, Sharon Z. Adam, BMedSc, Gideon Uretzky, MD, Yanai Ben-Gal, MD, and Rephael Mohr, MD

93 **Improvement of Myocardial Stress Perfusion After Off-Pump Revascularization Using Bilateral Internal Thoracic In Situ Grafts Versus Y-Composite Grafts**
Chang Hyun Kang, MD, Ki-Bong Kim, MD, Chun Soo Park, MD, Jin Chul Paeng, MD, and Dong Soo Lee, MD

99 **Intravascular Ultrasound Analysis of the Radial Artery for Coronary Artery Bypass Grafting**
Akio Oshima, MD, Satoshi Takeshita, MD, Ken Kozuma, MD, Naoyuki Yokoyama, MD, Kentaro Motoyoshi, MD, Shuichi Ishikawa, MD, Mitsuyoshi Honda, MD, Koji Oga, MD, Masahiko Ochiai, MD, and Takaaki Isshiki, MD

104 **Determining the Utility of Temporary Pacing Wires After Coronary Artery Bypass Surgery**
Brian T. Bethea, MD, Jorge D. Salazar, MD, Maura A. Grega, MSN, John R. Doty, MD, Torin P. Fitton, MD, Diane E. Alejo, BA, Louis M. Borowicz, Jr, MS, Vincent L. Gott, MD, Marc S. Sussman, MD, and William A. Baumgartner, MD

108 **Atrial Flutter After Surgical Radiofrequency Ablation of the Left Atrium for Atrial Fibrillation**
Gregory Golovchiner, MD, Alexander Mazur, MD, Alex Kogan, MD, Boris Strasberg, MD, Yaron Shapira, MD, Menachem Fridman, MD, Jairo Kuzniec, MD, Bernardo A. Vidne, MD, and Ehud Raanani, MD

113 **Selective Use of Amiodarone and Early Cardioversion for Postoperative Atrial Fibrillation**
Louis E. Samuels, MD, Elena C. Holmes, CRNP, and Fania L. Samuels, MD

117 **Three-Day Magnesium Administration Prevents Atrial Fibrillation After Coronary Artery Bypass Grafting**
Hiroki Kohno, MD, Toshiya Koyanagi, MD, Hitoshi Kasegawa, MD, and Masaru Miyazaki, MD

127 **Secondary Tricuspid Regurgitation or Dilatation: Which Should Be the Criteria for Surgical Repair?**
Gilles D. Dreyfus, MD, Pierre J. Corbi, MD, K. M. John Chan, AFRCS, and Toufan Bahrami, MD

133 **Does Cross-Clamping the Arch Increase the Risk of Descending Thoracic and Thoracoabdominal Aneurysm Repair?**
Leonard N. Girardi, MD, Karl H. Krieger, MD, Charles A. Mack, MD, Leonard Y. Lee, MD, Anthony J. Tortolani, MD, and O. Wayne Isom, MD

Invited Commentary
R. Scott Mitchell, MD

139 **Assessment of Cerebral Blood Flow With Transcranial Doppler in Right Brachial Artery Perfusion Patients**
Ümit Karadeniz, MD, Özcan Erdemli, MD, Mehmet Ali Özatik, MD, Bülent Yamak, MD, Abid Demirci, MD, Şeref A. Küçüker, MD, Ahmet Sarıtaş, MD, and Oğuz Taşdemir, MD

Invited Commentary
Marc Schepens, MD, PhD

147 **Reoperation for False Aneurysm of the Ascending Aorta After Its Prosthetic Replacement: Surgical Strategy**
Siamak Mohammadi, MD, Nicolas Bonnet, MD, Pascal Leprince, MD, Mohamed Kolsi, MD, Akhtar Rama, MD, Alain Pavie, MD, and Iradj Gandjbakhch, MD

Invited Commentary
Scott A. LeMaire, MD

153 **Local Gentamicin Reduces Sternal Wound Infections After Cardiac Surgery: A Randomized Controlled Trial**
Örjan Friberg, MD, Rolf Svedjeholm, MD, PhD, Bo Söderquist, MD, PhD, Hans Granfeldt, MD, Tomas Vikerfors, MD, PhD, and Jan Källman, MD, PhD

Invited Commentary
Reida El Oakley, FRCS, MD

163 **Redo Submammary Incision for Median Sternotomy and Cardiac Repair**
Jonah Odim, MD, PhD, Raj Vyas, BS, Hillel Laks, MD, Azie Alikhani, BA, Umang Mehta, MD, and Kakra Hughes, MD

168 **In Vitro Studies of Human Hearts**
Alexander J. Hill, PhD, Timothy G. Laske, PhD, James A. Coles, Jr, PhD, Daniel C. Sigg, MD, PhD, Nicholas D. Skadsberg, MS, Sarah A. Vincent, MS, Charles L. Soule, BS, William J. Gallagher, BA, and Paul A. Iaizzo, PhD

178 **Back from Irreversibility: Extracorporeal Life Support for Prolonged Cardiac Arrest**
Massimo Massetti, MD, Marine Tasle, MD, Olivier Le Page, MD, Ronan Deredec, MD, Gerard Babatasi, MD, Dimitrios Buklas, MD, Sylvain Thuaudet, MD, Pierre Charbonneau, MD, Martial Hamon, MD, Gilles Grollier, MD, Jean Louis Gerard, MD, and André Khayat, MD

Invited Commentary
Brian W. Duncan, MD

185 **Effect of Ventricular Size and Patch Stiffness in Surgical Anterior Ventricular Restoration: A Finite Element Model Study**
Alan B. C. Dang, BS, Julius M. Guccione, PhD, Peng Zhang, MD, PhD, Arthur W. Wallace, MD, PhD, Robert C. Gorman, MD, Joseph H. Gorman III, MD, and Mark B. Ratcliffe, MD

194 **Oral Sildenafil Reduces Pulmonary Hypertension After Cardiac Surgery**
Aaron L. Trachte, MD, Emilio B. Lobato, MD, Felipe Urdaneta, MD, Phillip J. Hess, MD, Charles T. Klodell, MD, Tomas D. Martin, MD, Edward D. Staples, MD, and Thomas M. Beaver, MD

198 **Cardiac "Fitness" Training: An Experimental Comparative Study of Three Methods of Pulmonary Artery Banding for Ventricular Training**
Emmanuel Le Bret, MD, PhD, Jean Marc Lupoglazoff, MD, PhD, Nicolas Borenstein, DVM, Gaelle Fromont, MD, François Laborde, MD, Jean Bachet, MD, and Pascal Vouhé, MD

204 **Changes in P-Selectin Expression on Cardiac Microvessels in Blood-Perfused Rat Hearts Subjected to Ischemia-Reperfusion**
Andrew O. Chukwuemeka, FRCS, K. Alun Brown, PhD, Graham E. Venn, MS, and David J. Chambers, PhD

ORIGINAL ARTICLES: GENERAL THORACIC

212 **National Trends in Outcomes for Esophageal Resection**
Justin B. Dimick, MD, Reid M. Wainess, BS, Gilbert R. Upchurch, Jr, MD, Mark D. Iannettoni, MD, MBA, and Mark B. Orringer, MD

Invited Commentary
Victor A. Ferraris, MD, PhD

219 **Thymoma and Myasthenia Gravis: A Clinical Study of 1,089 Patients From Japan**
Kazuya Kondo, MD, PhD, and Yasumasa Monden, MD, PhD

225 **Skip Mediastinal Lymph Node Metastasis and Lung Cancer: A Particular N2 Subgroup With a Better Prognosis**
Marc Riquet, MD, Jalal Assouad, MD, Patrick Bagan, MD, Christophe Foucault, MD, Françoise Le Pimpec Barthes, MD, Antoine Dujon, MD, and Claire Danel, MD

234 **Extended Pneumonectomy With Partial Resection of the Left Atrium, Without Cardiopulmonary Bypass, for Lung Cancer**
Lorenzo Spaggiari, MD, PhD, Massimiliano D' Aiuto, MD, Giulia Veronesi, MD, Giuseppe Pelosi, MD, Tommaso de Pas, MD, Gianpiero Catalano, MD, and Filippo de Braud, MD

241 **Lung Cancer and Its Operable Brain Metastasis: Survival Rate and Staging Problems**
József Furák, MD, PhD, Imre Troján, MD, Tamás Szöke, MD, László Agócs, MD, Attila Csekeö, MD, PhD, József Kas, MD, Egon Svastics, MD, József Eller, PhD, and László Tiszlavicz, MD, PhD

248 **Prognostic Significance of the Tumor Suppressor Gene Maspin in Non–Small Cell Lung Cancer**
Kyoji Hirai, MD, Kiyoshi Koizumi, MD, Shuji Haraguchi, MD, Tomomi Hirata, MD, Iwao Mikami, MD, Mitsuhiro Fukushima, MD, Shigeki Yamagishi, MD, Tetsuo Kawashima, MD, Daisuke Okada, MD, Kazuo Shimizu, MD, and Masashi Kawamoto, MD

254 **Intraoperative Pleural Lavage: Is It a Valid Prognostic Factor in Lung Cancer?**
Giovanni Vicidomini, MD, PhD, Mario Santini, MD, Alfonso Fiorello, MD, Vincenzo Parascandolo, MD, Barbara Calabrò, MD, and Vincenzo Pastore, MD

258 **Thoracoscopic Localization Techniques for Patients With Solitary Pulmonary Nodule and History of Malignancy**
Davide Sortini, MD, Carlo V. Feo, MD, Paolo Carcoforo, MD, Giovanni Carrella, MD, Enzo Pozza, MD, Alberto Liboni, MD, and Andrea Sortini, MD

Invited Commentary
Joseph Miller, Jr, MD

263 **Endoscopic Ultrasound-Guided Fine Needle Aspiration of Mediastinal Lymph Node in Patients With Suspected Lung Cancer After Positron Emission Tomography and Computed Tomography Scans**
Mohamad A. Eloubeidi, MD, MHS, Robert J. Cerfolio, MD, Victor K. Chen, MD, Renee Desmond, PhD, Sujath Syed, MD, and Buddhiwardhan Ojha, MD

269 **Intraoperative Sentinel Lymph Node Mapping of the Lung Using Near-Infrared Fluorescent Quantum Dots**
Edward G. Soltesz, MD, MPH, Sungjee Kim, PhD, Rita G. Laurence, BS, Alec M. DeGrand, BS, Cherie P. Parungo, MD, Delphine M. Dor, BA, Lawrence H. Cohn, MD, Moungi G. Bawendi, PhD, John V. Frangioni, MD, PhD, and Tomislav Mihaljevic, MD

278 **Histopathologic Prognostic Factors in Resected Colorectal Lung Metastases**
Satoshi Shiono, MD, Genichiro Ishii, MD, Kanji Nagai, MD, Junji Yoshida, MD, Mitsuyo Nishimura, MD, Yukinori Murata, MT, Koji Tsuta, MD, Yutaka Nishiwaki, MD, Tetsuro Kodama, MD, and Atsushi Ochiai, MD

Invited Commentary
Yukihito Saito, MD

284 **Bronchial Stump Coverage With a Pedicled Pericardial Flap: An Effective Method for Prevention of Postpneumonectomy Bronchopleural Fistula**
Shahrokh Taghavi, MD, Gabriel M. Marta, MD, Georg Lang, MD, Gernot Seebacher, MD, Gunther Winkler, MD, Katharina Schmid, MD, and Walter Klepetko, MD

289 **Persistent Cough Following Pulmonary Resection: Observational and Empiric Study of Possible Causes**
Noriyoshi Sawabata, MD, Hajime Maeda, MD, Shin-ichi Takeda, MD, Masayoshi Inoue, MD, Masaru Koma, MD, Toshiteru Tokunaga, MD, and Hikaru Matsuda, MD

294 **Good Long-Term Outcomes After Surgical Treatment of Simple and Complex Pulmonary Aspergilloma**
Young Tae Kim, MD, PhD, Moon Chul Kang, MD, Sook Whan Sung, MD, PhD, and Joo Hyun Kim, MD, PhD

299 **Surgical Management of Tuberculosis-Related Hemoptysis**
Abdullah Erdogan, MD, Arif Yegin, MD, Gülsüm Gürses, MD, and Abid Demircan, MD

303 **Solitary Fibrous Tumors of the Pleura: Surgical Outcome and Clinical Course**
Sook Hwan Sung, MD, Jee-Won Chang, MD, Jhingook Kim, MD, Kyung Soo Lee, MD, Jungho Han, MD, and Seung Il Park, MD

308 **Surgical Treatment of Diaphragmatic Eventration Using Video-Assisted Thoracic Surgery: A Prospective Study**
Jérôme Mouroux, MD, Nicolas Venissac, MD, Francesco Leo, MD, Marco Alifano, MD, and Françoise Guillot, MD

NEW TECHNOLOGY

313 **Video-Assisted Thoracoscopic Surgery for Pulmonary Nodules After Computed Tomography-Guided Marking With a Spiral Wire**
Uwe Eichfeld, MD, PhD, Arne Dietrich, MD, Rudolph Ott, MD, PhD, and Rainer Kloeppel, MD, PhD

Invited Commentary
Jeffrey M. Piehler, MD

318 **The Acute Effects of Transthoracic Cryoablation on Normal Lung Evaluated in a Porcine Model**
Yotaro Izumi, MD, PhD, Takahiko Oyama, MD, Eiji Ikeda, MD, PhD, Masafumi Kawamura, MD, PhD, and Koichi Kobayashi, MD, PhD

Invited Commentary
Joseph B. Shrager, MD

CASE REPORTS

e1 **Multiple Ground-Glass Opacity in Metastasis of Malignant Melanoma Diagnosed by Lung Biopsy**
Riki Okita, MD, Motohiro Yamashita, MD, Masao Nakata, MD, Norihiro Teramoto, MD, Akihiro Bessho, MD, and Hiroshi Mogami, MD

e3 **No Regrowth After Incomplete Papillary Fibroelastoma Excision**
Satoshi Sumino, MD, and Hugh S. Paterson, FRACS

e5 **Stent Implantation Into Vertical Arterial Duct in Adult Patient With Cyanotic Congenital Heart Disease**
Kenji Suda, MD, Masahiko Matsumura, MD, and Masahiko Matsumoto, MD

e7 **Hemoptysis From Collateral Arteries 12 Years After a Fontan-Type Operation**
Kenji Suda, MD, Masahiko Matsumura, MD, Akira Sano, MD, Shinichiro Yoshimura, MD, and Tetsuko Ishii, MD

e9 **Late Complication of Aortocoronary Venous Bypass Grafting**
Gerhard A. Kalweit, MD, Hanno Huwer, MD, Salah El Dsoki, and Helmut Isringhaus, MD

323 **Seeding of Stage I Thymoma Into the Chest Wall 12 Years After Needle Biopsy**
Hassan Kattach, MRCS, Shafqat Hasan, FRCS, Colin Clelland, FRCPath, and Ravi Pillai, FRCS

325 **Long-Term Survival After Salvage Surgery for Colorectal Lung Metastases**
Pietro Fabio Presicci, MD, Giulia Veronesi, MD, Massimiliano D'Aiuto, MD, and Lorenzo Spaggiari, MD, PhD

326 **Cystic Adenomatoid Malformation of the Lung Presenting in Adulthood**
Yolanda Herrero, MD, Inmaculada Pinilla, MD, PhD, Isabel Torres, MD, Manuel Nistal, MD, PhD, Mercedes Pardo, MD, and Nieves Gómez, MD, PhD

329 **Primary Pulmonary Myxoma**
Hidehito Matsuoka, MD, PhD, Yukihiro Takata, MD, PhD, and Sakan Maeda, MD, PhD

330 **An Aberrant Donor Pulmonary Vein During Lung Transplant: A Surgical Challenge**
Noman Hasan Khasati, MBBS, MS, Ali MacHaal, MD, Joyce Thekkudan, MBBS, FRCS, Somnath Kumar, MBBS, MRCP, and Nizar Yonan, MBBS, FRCS

331 **Congenital Absence of the Right Upper Lobe Bronchus With Double Segmental Tracheal Bronchi**
Gabriele Di Luozzo, MD, Heung Bae Kim, MD, Phillip M. Boiselle, MD, Andrew A. Colin, MD, and Steven J. Fishman, MD

334 **Delayed Thrombin Generation With Hirudin Anticoagulation During Prolonged Cardiopulmonary Bypass**
Fraser D. Rubens, MD, MS, Gilbert Lavalee, Marc A. Ruel, MD, MPH, Thierry Mesana, MD, PhD, and Michael Bourke, MD

337 **Application of Papillary Muscle Sling Concept in an Infant as a Biological Bridge to Transplantation**
Nai-Hsin Chi, MD, Shu-Chien Huang, MD, His-Yu Yu, MD, Yih-Sharng Chen, MD, and Shoei-Shan Wang, MD

339 **Spontaneous Atrioventricular Groove Disruption During Off-Pump Coronary Artery Bypass Grafting**
Jennifer S. Lawton, MD, Seema P. Deshpande, MD, Paul B. Zanaboni, MD, and Ralph J. Damiano, Jr, MD

341 **Surgical Repair of Postoperative Left Sinus of Valsalva Aneurysm Dissecting Into the Interventricular Septum**
Veysel Kutay, MD, Hasan Ekim, MD, and Cevat Yakut, MD

343 **Severe Coronary Artery Disease With Coarctation of the Aorta: Role of Off-Pump Coronary Artery Bypass Grafting**
Komarakshi R. Balakrishnan, MD, Sadagopan Thanikachalam, DM, Jayanthi Satyanarayana Murthy, DipNB, Richard Saldanha, MD, and Mariappan Jayarajah, DM

345 **Same Day Discharge Following Multivessel Off-Pump Coronary Artery Bypass Via Sternotomy**
J. W. Randolph Bolton, MD

347 **Anomalous Origin of the Right Coronary Artery From the Pulmonary Artery Combined With Aortic Valve Stenosis**
Torsten Bossert, MD, Thomas Walther, MD, PhD, Nicolas Doll, MD, Jan F. Gummert, MD, PhD, Martin Kostelka, MD, PhD, and Friedrich W. Mohr, MD, PhD

348 **Can An Early Peri-Anastomotic LITA Stenosis Be Reversible?**
Calin Ivascau, MD, Dimitrios Buklas, MD, Massimo Massetti, MD, Remy Sabatier, MD, Olivier LePage, MD, Eugenio Neri, MD, Gerard Babatasi, MD, and Andrè Khayat, MD

351 **Malignant Fibrous Histiocytoma of the Heart Complicated by Factor XI Deficiency in a Jehovah's Witness Patient**
Toru Uezu, MD, Yukio Kuniyoshi, MD, PhD, Kazufumi Miyagi, MD, Katsuya Arakaki, MD, Satoshi Yamashiro, MD, PhD, Katsuhito Mabuni, MD, and Kageharu Koja, MD, PhD

IMAGES IN CARDIOTHORACIC SURGERY

354 **Pulmonary Mucormycosis**
Nick Dobrilovic, MD, and Michael A. Wait, MD

355 **Dissection of the Left Ventricular Outflow Septum Due to Relapsing Infective Endocarditis**
Mamoru Munakata, MD, Kozo Fukui, MD, Kazuyuki Daitoku, MD, Hiroyuki Itaya, MD, Toshiro Matsunaga, MD, Ken Okumura, MD, and Ikuo Fukuda, MD

HOW TO DO IT

e11 **Management of Left Atrial Endocardium After Extensive Thrombectomy**
Cheong Lim, MD, Won-Hee Rhyu, MD, Young Lee, MD, and Joong Haeng Choh, MD, FACS

356 **External Aortic Annuloplasty Ring for Valve-Sparing Procedures**
Emmanuel Lansac, MD, Isabelle Di Centa, MD, Shaïda Varnous, MD, Akhar Rama, MD, Frédéric Jault, MD, Carlos M. G. Duran, MD, PhD, Christophe Acar, MD, Alain Pavie, MD, and Iradj Gandjbakhch, MD

359 **Achilles Tendon for Sternal Synthesis in the Treatment of Mediastinitis**
Marisa De Feo, MD, Antonio Carozza, MD, PhD, Alessandro Della Corte, MD, Cesare Quarto, MD, Michele Torella, MD, Luca Salvatore De Santo, MD, Gianantonio Nappi, MD, and Maurizio Cotrufo, MD

361 **Partial Right Internal Thoracic Artery Harvesting is Sufficient for Obtuse Marginal Branch Bypass Grafting**
Jacob Zeitani, MD, Alfonso Penta de Peppo, MD, Ruggero De Paulis, MD, Paolo Nardi, MD, Antonio Scafuri, MD, Francesco Versaci, MD, and Luigi Chiariello, MD

363 **Hydrodissection in Redo Sternotomies**
Rosauro Mejia, MBBS, Pankaj Saxena, MCh, and Robert K. Tam, MD, FRACS

REVIEWS

365 **Is Virtual Bronchoscopy an Efficient Diagnostic Tool for the Thoracic Surgeon?**
Catherine M. Jones, MBBS, and Thanos Athanasiou, MD, PhD

375 **Meta-Analysis of Positron Emission Tomographic and Computed Tomographic Imaging in Detecting Mediastinal Lymph Node Metastases in Nonsmall Cell Lung Cancer**
Özcan Birim, MD, A. Pieter Kappetein, MD, PhD, Theo Stijnen, PhD, and Ad J. J. C. Bogers, MD, PhD

CORRESPONDENCE

383 **Is Off-Pump Bypass Grafting Truly Superior to Conventional Coronary Artery Bypass Grafting?**
Daniel T. Bainbridge, MD, FRCPC, Janet Martin, PharmD, and Davy Cheng, MS, MD

Reply
James T. Reston, PhD, MPH, and Charles M. Turkelson, PhD

384 **Job Availability for Finishing Cardiothoracic Surgery Residents**
Grayson H. Wheatley III, MD

384 **Effects of Pneumonectomy on Survival of Patients With Stage I Lung Cancer**
Thomas J . Birdas, MD

Reply
Christos Alexiou, FRCS, David Beggs, FETCS, George Doukas, FRCS, Kostas Kotidis, FRCS, Ellis Morgan, FRCS, and Gaetano Rocco, FETCS

385 **Short- and Long-Term Mortality After Pulmonary Resection**
Rafael Aguilo, MD, PhD, and Juan Minguella, MD, PhD

386 **Ultraflex Expandable Metallic Stent for the Treatment of a Bronchopleural Fistula After Pneumonectomy**
Carlos Enrique García Franco, MD, Javier Flandes Aldeyturriaga, MD, PhD, and José Zapatero Gaviria, MD, PhD

386 **Subxiphoid Pericardiostomy Versus Percutaneous Extended Catheter Drainage**
Keith B. Allen, MD

Reply
Claire L. Buchanan, MD, Vita V. Sullivan, MD, Richard Lampman, PhD, and Mohan G. Kulkarni, MD

387 **Cerebral Embolization During Coronary Artery Bypass Grafting**
Suzana M. F. Malheiros, MD, and Ayrton R. Massaro, MD

388 **Conduction Disturbance After Shutdown of the Sinus Node Artery**
Yoshio Misawa, MD, Yuichiro Kaminishi, MD, and Yasuhito Sakano, MD

Reply
Denis Berdajs, MD, Patonay Lajos, MD, DD, and Marko I. Turina, MD

389 **Recurrence of Atrial Fibrillation and Flutter After Atrial Compartment Operation: Modified Atrial Incisions and Role of Amiodarone**
Vidyadhar Lad, MCh, FRCS

389 **Direct Coronary Reimplantation for Repair of Anomalous Aortic Origin of Left or Right Coronary Artery**
Kojiro Furukawa, MD, and Tsuyoshi Itoh, MD

Reply
James Jaggers, MD

ANNOUNCEMENTS

A-44 **Information for Authors**

A-49 **Guidelines for Reviewers**

A-51 **Conditions for Publication Form**

A-53 Events of Interest

46 Online Discussion Forum

52 Requirements for Recertification/ Maintenance of Certification in 2005

126 Notice From the American Board of Thoracic Surgery Regarding Trainees and Candidates for Certification Who Are Called to Military Service Related to the War on Terrorism

138 Notice From the American Board of Thoracic Surgery

167 The Society of Thoracic Surgeons: Forty-first Annual Meeting

211 The Society of Thoracic Surgeons Policy Action Center

224 Southern Thoracic Surgical Association: Fifty-second Annual Meeting

233 The Thoracic Surgery Foundation for Research and Education

307 Member and Individual Subscriber Access to the Online *Annals*

A-66 Southern Thoracic Surgical Association Rules for Submission of Abstracts

A-57 Classified Advertisements

A-65 Index to Advertisers

Number 2 February 2005

RESEARCH IN AGING AWARD

391 **Preoperative Chemoradiotherapy Prior to Esophagectomy in Elderly Patients is Not Associated With Increased Morbidity**
David C. Rice, MB, BCh, Arlene M. Correa, PhD, Ara A. Vaporciyan, MD, Nidhi Sodhi, MD, W. Roy Smythe, MD, Stephen G. Swisher, MD, Garrett L. Walsh, MD, Joe B. Putnam, Jr, MD, Ritsuko Komaki, MD, Jaffer A. Ajani, MD, and Jack A. Roth, MD

ORIGINAL ARTICLES: GENERAL THORACIC

398 **Management of Postoperative Esophageal Leaks With the Polyflex Self-Expanding Covered Plastic Stent**
Felix B. Langer, MD, Etienne Wenzl, MD, Gerhard Prager, MD, Andreas Salat, MD, Johannes Miholic, MD, Thomas Mang, MD, and Johannes Zacherl, MD

Invited Commentary
Rudy Lackner, MD

405 **Low-Dose Steroid Therapy at an Early Phase of Postoperative Acute Respiratory Distress Syndrome**
Hyun-Sung Lee, MD, Jong Mog Lee, MD, Moon Soo Kim, MD, Hyae Young Kim, MD, PhD, Bin Hwangbo, MD, and Jae Ill Zo, MD, PhD

411 **Bronchoscopic Lung-Volume Reduction With One-Way Valves in Patients With Heterogenous Emphysema**
Federico Venuta, MD, Tiziano de Giacomo, MD, Erino A. Rendina, MD, Anna Maria Ciccone, MD, Daniele Diso, MD, Alessandro Perrone, MD, Daniela Parola, MD, Marco Anile, MD, and Giorgio F. Coloni, MD

Invited Commentary
Douglas E. Wood, MD

418 **Long-Term Pulmonary Function After Living-Donor Lobar Lung Transplantation in Adults**
Michael E. Bowdish, MD, Renzo Pessotto, MD, Richard G. Barbers, MD, Felicia A. Schenkel, RN, Vaughn A. Starnes, MD, and Mark L. Barr, MD

426 **Inflammatory Pseudotumor of the Lung in Adults**
Giulio Melloni, MD, Angelo Carretta, MD, Paola Ciriaco, MD, Gianluigi Arrigoni, MD, Stefano Fieschi, MD, Nathalie Rizzo, MD, Edgardo Bonacina, MD, Giuseppe Augello, MD, Pier Angelo Belloni, MD, and Piero Zannini, MD

433 **Risk of a Right Pneumonectomy: Role of Bronchopleural Fistula**
Gail E. Darling, MD, Adel Abdurahman, MD, Qi-Long Yi, PhD, Michael Johnston, MD, Thomas K. Waddell, MD, Andrew Pierre, MD, Shaf Keshavjee, MD, and Robert Ginsberg, MD

438 **Immediate and Long-Term Survival After Surgery for Lung Cancer in Heart Transplant Recipients**
Patrick Bagan, MD, Jalal Assouad, MD, Pascal Berna, MD, Redha Souilamas, MD, Françoise Le Pimpec Barthes, MD, and Marc Riquet, MD

443 **Transthoracic Endosonography for the Intraoperative Localization of Lung Nodules**
Sandro Mattioli, MD, Franco D'Ovidio, MD, Niccolò Daddi, MD, Luca Ferruzzi, MD, Vladimiro Pilotti, MD, Alberto Ruffato, MD, Roberto Bolzani, PhD, and Giampaolo Gavelli, MD

450 **Application of Robotic-Assisted Techniques to the Surgical Evaluation and Treatment of the Anterior Mediastinum**
Michael A. Savitt, MD, MSE, Guangquiang Gao, MD, Anthony P. Furnary, MD, Jeffrey Swanson, MD, Hugh L. Gately, MD, and John R. Handy, MD

Invited Commentary
Stephen R. Hazelrigg, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

456 **Left Ventricular Reconstruction Benefits Patients With Dilated Ischemic Cardiomyopathy**
Atsushi Yamaguchi, MD, Hideo Adachi, MD, Koji Kawahito, MD, Seiichiro Murata, MD, and Takashi Ino, MD

462 **Importance of Moderate Ischemic Mitral Regurgitation**
B-Khanh Lam, MD, A. Marc Gillinov, MD, Eugene H. Blackstone, MD, Jeevanantham Rajeswaran, MS, Bertram Yuh, BS, Sunil K. Bhudia, MD, Patrick M. McCarthy, MD, and Delos M. Cosgrove, MD

471 **Edge-to-Edge Technique to Treat Post-Mitral Valve Repair Systolic Anterior Motion and Left Ventricular Outflow Tract Obstruction**
Roberto Mascagni, MD, Nawwar Al Attar, FRCS, Mauro Lamarra, MD, Simone Calvi, MD, Alberto Tripodi, MD, Alexandre Mebazaa, MD, PhD, and Arrigo Lessana, MD

Invited Commentary
Ottavio Alfieri, MD, and Francesco Maisano, MD

475 **Long-Term Assessment of Mitral Valve Reconstruction With Resection of the Leaflets: Triangular and Quadrangular Resection**
Yoshimasa Sakamoto, MD, Kazuhiro Hashimoto, MD, Hiroshi Okuyama, MD, Shinichi Ishii, MD, Makoto Hanai, MD, Takahiro Inoue, MD, Gen Shinohara, MD, Kiyozo Morita, MD, and Hiromi Kurosawa, MD

480 **Combining Robotic Mitral Valve Repair and Microwave Atrial Fibrillation Ablation: Techniques and Initial Results**
Clifton C. Reade, MD, James O. Johnson, MD, Gil Bolotin, MD, William L. Freund, Jr, MD, Nelson L. Jenkins, MD, Curtis E. Bower, MD, Saqib Masroor, MD, Alan P. Kypson, MD, L. Wiley Nifong, MD, and W. Randolph Chitwood, Jr, MD, FACS

485 **Video and Robotic-Assisted Minimally Invasive Mitral Valve Surgery: A Comparison of the Port-Access and Transthoracic Clamp Techniques**
Hermann Reichenspurner, MD, PhD, Christian Detter, MD, Tobias Deuse, MD, Dieter H. Boehm, MD, PhD, Hendrik Treede, MD, and Bruno Reichart, MD

Invited Commentary
W. Randolph Chitwood, Jr, MD

492 **Minimally Invasive Port Access Versus Conventional Mitral Valve Surgery: Prospective Randomized Study**
Selami Dogan, MD, Tayfun Aybek, MD, Petar S. Risteski, MD, Farooq Detho, Andrea Rapp, MD, Gerhard Wimmer-Greinecker, MD, PhD, and Anton Moritz, MD, PhD

499 **The Ross Operation: An Evaluation of a Single Institution's Experience**
Fabrizio Settepani, MD, Abdullah Kaya, MD, Wim J. Morshuis, MD, PhD, Marc A. Schepens, MD, PhD, Robin H. Heijmen, MD, PhD, and Karl M. Dossche, MD, PhD

505 **Impact of Valve Prosthesis-Patient Mismatch on Left Ventricular Mass Regression Following Aortic Valve Replacement**
Giordano Tasca, MD, Federico Brunelli, MD, Marco Cirillo, MD, Margherita DallaTomba, MD, Zen Mhagna, MD, Giovanni Troise, MD, and Eugenio Quaini, MD

511 **Impact of Concomitant Coronary Artery Bypass Grafting on Hospital Survival After Aortic Root Replacement**
John G. Byrne, MD, Alexandros N. Karavas, MD, Marzia Leacche, MD, Daniel Unic, MD, James D. Rawn, MD, Gregory S. Couper, MD, Tomislav Mihaljevic, MD, Robert J. Rizzo, MD, Sary F. Aranki, MD, and Lawrence H. Cohn, MD

517 **Evaluation of Ventral Cardiac Denervation As a Prophylaxis Against Atrial Fibrillation After Coronary Artery Bypass Grafting**
Joseph Alex, MD, MRCS, and Levent Guvendik, MD, FRCS, FETCS

521 **Midterm Results of Pulmonary Vein Isolation for the Elimination of Chronic Atrial Fibrillation**
Taijiro Sueda, MD, Katsuhiko Imai, MD, Kazumasa Orihashi, MD, Kenji Okada, MD, Kouji Ban, MD, and Masaki Hamamoto, MD

526 **Clinical Outcome of Patients With Deep Sternal Wound Infection Managed by Vacuum-Assisted Closure Compared to Conventional Therapy With Open Packing: A Retrospective Analysis**
Uwe Fuchs, MD, Armin Zittermann, PhD, Benjamin Stuettgen, MD, Arndt Groening, MD, Kazutomo Minami, MD, and Reiner Koerfer, MD

532 **Perioperative Stroke and Long-Term Survival After Coronary Bypass Graft Surgery**
Lawrence J. Dacey, MD, Donald S. Likosky, PhD, Bruce J. Leavitt, MD, Stephen J. Lahey, MD, Reed D. Quinn, MD, Felix Hernandez, Jr, MD, Hebe B. Quinton, MS, Joseph P. Desimone, MD, Cathy S. Ross, MS, and Gerald T. O'Connor, DSc, PhD

Invited Commentary
Timothy J. Gardner, MD

538 **Waiting Time and Mortality After Elective Coronary Artery Bypass Grafting**
Helena Rexius, MD, Gunnar Brandrup-Wognsen, MD, PhD, Anders Odén, PhD, and Anders Jeppsson, MD, PhD

544 **Comparison of Saphenous Vein and Internal Thoracic Artery Graft Patency by Coronary System**
Joseph F. Sabik III, MD, Bruce W. Lytle, MD, Eugene H. Blackstone, MD, Penny L. Houghtaling, MS, and Delos M. Cosgrove, MD

552 **Coronary Revascularization Without Cardiopulmonary Bypass Versus the Conventional Approach in High-Risk Patients**
Sotiris C. Stamou, MD, PhD, Kathleen A. Jablonski, PhD, Peter C. Hill, MD, Ammar S. Bafi, MD, Steven W. Boyce, MD, and Paul J. Corso, MD

558 **Coronary Endarterectomy and Stent Removal in Patients With In-Stent Restenosis**
Toshihiro Fukui, MD, Shuichiro Takanashi, MD, and Yasuyuki Hosoda, MD

Invited Commentary
Alistair George Royse, MBBS, MD

564 **Revascularization of the Right Coronary Artery in Bilateral Internal Thoracic Artery Grafting**
Dmitry Pevni, MD, Gideon Uretzky, MD, Paz Yosef, MD, Ben Gal Yanay, MD, Itzhak Shapira, MD, Nahum Nesher, MD, Ron Braunshtein, MD, and Rephael Mohr, MD

570 **Preoperative Assessment of the Radial Artery for Coronary Artery Bypass Grafting: Is the Clinical Allen Test Adequate?**
Marco Agrifoglio, MD, PhD, Luca Dainese, MD, Stefano Pasotti, MD, Andrea Galanti, MD, Aldo Cannata, MD, Maurizio Roberto, MD, PhD, Alessandro Parolari, MD, PhD, and Paolo Biglioli, MD

573 **First Clinical Experience With the VSTENT: A Device for Direct Left Ventricle-to-Coronary Artery Bypass**
Calin Vicol, MD, Bruno Reichart, MD, Sandra Eifert, MD, Philip Raake, MD, Rabea Hinkel, DVM, Gerhard Steinbeck, MD, and Peter Boekstegers, MD

Invited Commentary
Michael J. Mack, MD

580 **Left Internal Thoracic Artery Graft Assessed by Means of Intraoperative Transesophageal Echocardiography**
Kazumasa Orihashi, MD, Taijiro Sueda, MD, Kenji Okada, MD, and Katsuhiko Imai, MD

585 **Multidetector Computed Tomography Versus Coronary Angiogram in Evaluation of Coronary Artery Bypass Grafts**
Min-Ho Song, MD, Toshiaki Ito, MD, Takashi Watanabe, MD, and Hajime Nakamura, MD

589 **Modification of Surgical Planning Based on Cardiac Multidetector Computed Tomography in Reoperative Heart Surgery**
Galit Aviram, MD, Ram Sharony, MD, Amir Kramer, MD, Nahum Nesher, MD, Dan Loberman, MD, Yanai Ben-Gal, MD, Moshe Graif, MD, Gideon Uretzky, MD, and Rephael Mohr, MD

596 **Total Anomalous Pulmonary Venous Connection: An Analysis of Current Management Strategies in a Single Institution**
Camille L. Hancock Friesen, MD, David Zurakowski, PhD, Ravi R. Thiagarajan, MD, Joseph M. Forbess, MD, Pedro J. del Nido, MD, John E. Mayer, MD, and Richard A. Jonas, MD

607 **Development of Left Atrioventricular Valve Regurgitation After Correction of Atrioventricular Septal Defect**
A. Derk Jan Ten Harkel, MD, PhD, Adri H. Cromme-Dijkhuis, MD, PhD, Bianca C. C. Heinerman, MD, Wim C. Hop, PhD, and Ad J. J. C. Bogers, MD, PhD

613 **Early Outcome After Glenn Shunt and Fontan Palliation and the Impact of Operation During Viral Respiratory Season: Analysis of a 19-Year Multi-Institutional Experience**
Ramzi T. Nicolas, MD, Christine Hills, BA, James H. Moller, MD, Charles B. Huddleston, MD, and Mark C. Johnson, MD

Invited Commentary
James Jaggers, MD

618 **Early Results of the Bovine Jugular Vein Graft Used for Reconstruction of the Right Ventricular Outflow Tract**
Hitendu H. Dave, MD, Alexander Kadner, MD, Felix Berger, MD, Burkhardt Seifert, PhD, Ali Dodge-Khatami, MD, PhD, Dominique Béttex, MD, and René Prêtre, MD

625 **Adverse Mid-Term Outcome Following RVOT Reconstruction Using the Contegra Valved Bovine Jugular Vein**
Volkhard Göber, MD, Pascal Berdat, MD, Mladen Pavlovic, MD, Jean-Pierre Pfammatter, MD, and Thierry P. Carrel, MD

632 **Modified Extrapleural Ligation of Patent Ductus Arteriosus: A Convenient Surgical Approach in a Developing Country**
Juan Leon-Wyss, MD, Vladimiro L. Vida, MD, Oscar Veras, MD, Ivan Vides, MD, Guillermo Gaitan, MD, Mauricio O'Connell, MD, and Aldo R. Castañeda, MD, PhD

636 **Does the Site of Insertion of a Systemic-Pulmonary Shunt Influence Growth of the Pulmonary Arteries?**
Anjan S. Batra, MD, Vaughn A. Starnes, MD, and Winfield J. Wells, MD

641 **Panel-Reactive Antibodies Late After Allograft Implantation in Children**
David K. Hooper, MD, John A. Hawkins, MD, Thomas C. Fuller, PhD, Tracie Profaizer, BS, and Robert E. Shaddy, MD

Invited Commentary
Roger J. F. Baskett, MD

646 **Neurologic Preservation by Na+-H+ Exchange Inhibition Prior to 90 Minutes of Hypothermic Circulatory Arrest**
Manuel Castellá, MD, Gerald D. Buckberg, MD, and Zhongtuo Tan, PhD

655 **Effects of Methylprednisolone and a Biocompatible Copolymer Circuit on Blood Activation During Cardiopulmonary Bypass**
Fraser D. Rubens, MD, Howard Nathan, MD, Rosalind Labow, PhD, Kathryn S. Williams, MS, Denise Wozny, BA, Jacob Karsh, MD, Marc Ruel, MD, and Thierry Mesana, MD, PhD

666 **Comparison of Hydroxyethyl Starch and Ringer Lactate as a Prime Solution Regarding S-100β Protein Levels and Informative Cognitive Tests in Cerebral Injury**
Erkan Iriz, MD, Fersat Kolbakir, MD, Haci Akar, MD, Bahattin Adam, MD, and Hasan Tahsin Keceligil, MD

NEW TECHNOLOGY

672 **Experimental Study of Replacing Circumferential Tracheal Defects With New Prosthesis**
Hongcan Shi, MD, PhD, Zhifei Xu, MD, Xiong Qin, MD, Xuewei Zhao, MD, and Dan Lu, MD

Invited Commentary
Joseph LoCicero III, MD

678 **The Bicircuit System: Innovative Perfusional Options for Surgical Treatment of the Thoracic Aorta**
Gianluigi Bisleri, MD, Giancarlo Tisi, CCP, Alberto Negri, MD, Jacopo Manfredi, MD, Enrico Carone, MD, Jeffrey A. Morgan, MD, and Claudio Muneretto, MD

Invited Commentary
Lars G. Svensson, MD, PhD

682 **Aortic Leaflet Replacement With the New 3F Stentless Aortic Bioprosthesis**
Mirko Doss, MD, Sven Martens, MD, Jeffrey P. Wood, MD, Aleksandra Miskovic, MD, Triantafyllia Christodoulou, Gerhard Wimmer-Greinecker, MD, and Anton Moritz, MD

Invited Commentary
Irving Kron, MD

CASE REPORTS

e-Only Content

e13 **A Bronchogenic Cyst of the Right Ventricular Endocardium**
Malte Weinrich, MD, Henning F. Lausberg, MD, Stefan Pahl, MD, and Hans-Joachim Schäfers, MD, PhD

e15 **Granular Cell Tumor of the Trachea in a Child**
Franziska Stieglitz, MD, Richard Kitz, MD, Hans J. Schäfers, MD, Olaf Eickmeier, MD, Markus Rose, MD, MPH, Christian Fellbaum, MD, and Stefan Zielen, MD

e17 **Endovascular Control of Patent Internal Thoracic Artery Graft in Aortic Valve Surgery**
Jean-François G. Fuzellier, MD, Damien Metz, MD, Anne Poncet, MD, and Yves-Assad Saade, MD

686 **Tracheocele: Surgical and Thoracoscopic Findings**
Shunsuke Endo, MD, Noriko Saito, MD, Tsuyoshi Hasegawa, MD, Yukio Sato, MD, and Yasunori Sohara, MD

687 **Endoscopic Carbon Dioxide Laser Division of Congenital Complete Tracheal Rings: A New Operative Technique**
W. Andrew Clement, FRCS, Neil K. Geddes, FRCS, and Crispin Best, FRCA

689 **Pulmonary Hypoplasia in a 52-Year-Old Woman**
Ibrahim Can Kurkcuoglu, MD, Atilla Eroglu, MD, Nurettin Karaoglanoglu, MD, and Pinar Polat, MD

691 **Facilitated MIDCAB Using a Magnetic Coupling Device**
Volkmar Falk, MD, PhD, Thomas Walther, MD, PhD, Stephan Jacobs, MD, Randall K. Wolf, MD, and Friedrich W. Mohr, MD, PhD

693 **Intraoperative Fracture of the Right Coronary Artery: Recognition and Management**
Michael A. Borger, MD, PhD, Tirone E. David, MD, Nicolas Doll, MD, and Friedrich W. Mohr, MD, PhD

696 **Off-Pump Coronary Artery Bypass Grafting in a Heparin-Induced Thrombocytopenia Type II Patient Using Hirudin**
Cornélia S. Carr, FRCS, Alan Rayner, ACP, José Ponte, FRCA, and Jatin B. Desai, FRCS

698 **Post-Coronary Artery Bypass Graft Liver Failure: A Possible Association With Leflunomide**
Sarah C. Thomasset, MBChB, Seok L. Ong, MBChB, and Stephen R. Large, FRCS

700 **Reinforcement of Saphenous Vein Graft With ePTFE Graft for Axillocoronary Bypass Grafting**
Hiroyuki Nagahama, MD, PhD, Yasunori Fukushima, MD, PhD, Takahiro Hayase, MD, Makoto Yoshioka, MD, PhD, and Toshio Onitsuka, MD, PhD

701 **Postinfarction Ventricular Septal Defect With Pseudoaneurysm Repair After Failed Percutaneous Closure**
Subroto Paul, MD, Tomislav Mihaljevic, MD, Marzia Leacche, MD, Michael Landzberg, MD, Carolyn Y. Ho, MD, Gavin J. Blake, MD, and John G. Byrne, MD

703 **Managing Latex-Free Mitral Valve Replacement**
Marco Rossi, MD, Stefano De Paulis, MD, Mario Gaudino, MD, Sergio Guarneri, MD, Lorenzo Martinelli, MD, Roberto Zamparelli, MD, Gianfederico Possati, MD, and Rocco Schiavello, MD

705 **Pseudoaneurysm of Ascending Aorta After Aortic Valve Replacement**
Bhawna Parihar, MCh, Lalit S. D. Choudhary, MS, Andrew Philip Madhu, DNB, Mathew K. Alpha, MS, Roy Thankachen, MCh, and Vinayak Shukla, MCh, DNB

707 **Leiomyomatosis Metastatic to the Tricuspid Valve Complicated by Pelvic Hemorrhage**
Nundhini Thukkani, BS, P. S. Ravichandran, MD, Asish Das, MD, and Matthew S. Slater, MD

709 **Emergency Management of Severe Right Ventricular Inflow Obstruction Secondary to a Metastatic Cardiac Tumor**
Erdinç Naseri, MD, Bulent Eralp, MD, and Ibrahim Oztek, MD

711 **Novel Repair for Obstructed Total Anomalous Pulmonary Venous Connection to Coronary Sinus**
Sajan Koshy, MCh, Raman Krishna Kumar, DM, Rao Suresh Gururaja, MCh, and Krishnanaik Shivaprakasha, MCh

713 **Surviving Severe Acute Respiratory Distress Syndrome: Utility of Open-Lung Biopsy and Large Doses of Dexamethasone**
Kedar S. Deshpande, MD, David W. Appel, MD, Margarita T. Camacho, MD, Kathryn E. Tanaka, MD, and Vladimir Kvetan, MD

IMAGES IN CARDIOTHORACIC SURGERY

716 **Multiple Pleural Destruction Due to Pleural Dissemination of Pulmonary Carcinoma Originating From Pneumothorax**
Tohru Mawatari, MD, Atsushi Watanabe, MD, Hisayoshi Ohsawa, MD, Yasuaki Fujisawa, MD, and Tomio Abe, MD

717 **Calcified Mass in the Right Atrium**
Vladimiro Vida, MD, Alessia Cerutti, MD, Gaetano Thiene, MD, Giovanni Stellin, MD, Ornella Milanesi, MD, and Cristina Basso, MD, PhD

HOW TO DO IT

e-Only Content

e19 **Sternal Approximation for Bilateral Anterolateral Transsternal Thoracotomy for Lung Transplantation**
David C. McGiffin, MD, Jorge E. Alonso, MD, George L. Zorn, Jr, MD, James K. Kirklin, MD, K. Randall Young, Jr, MD, Keith M. Wille, MD, Kevin Leon, MD, and Katherine Hart, BS

718 **Operative Endoscopy of the Airway With the Old-Fashioned Esophageal Dilators**
Federico Venuta, MD, Erino A. Rendina, MD, Tiziano De Giacomo, MD, Anna Maria Ciccone, MD, Marco Anile, MD, Marco Moretti, MD, and Giorgio Furio Coloni, MD

720 **A Technique for Annular Plication to Facilitate Sliding Plasty After Extensive Mitral Valve Posterior Leaflet Resection**
Thierry Mesana, MD, PhD, Moheb Ibrahim, FRCSC, and Mark Hynes, FRCPC

723 **A Simple Method of Triggering Balloon Counterpulsation Accurately During Off-Pump Coronary Artery Bypass Surgery**
Takayuki Ono, MD, Teiji Asakura, MD, Takeki Ohashi, MD, and Nagara Ono, MD

726 **Abdominal Implantation of Loop Recorders in Infants and Children**
Narayanswami Sreeram, MD, Francois Hitchcock, MD, and Gerardus Bennink, MD

REVIEWS

728 **Pharmacologic Strategies for Prevention of Atrial Fibrillation After Open Heart Surgery**
Robert J. DiDomenico, PharmD, and Malek G. Massad, MD

741 **Forty Years of Clinical Aprotinin Use: A Review of 124 Hypersensitivity Reactions**
Wolfram Beierlein, MD, Albertus M. Scheule, MD, PhD, Wulf Dietrich, MD, PhD, and Gerhard Ziemer, MD, PhD

CORRESPONDENCE

749 **Surgical Therapy for End-Stage Achalasia**
Joseph H. Gorman III, MD, Robert C. Gorman, MD, and Emest F. Rosato, MD

Reply
Han-Shui Hsu, MD, and Min-Hsiung Huang, MD

750 **Use of Intracostal Sutures Reduces Thoracotomy Pain With Possible Risk of Lung Hernia: Another Measure for Prevention of Pain**
Lucas H. A. Sanders, MD, FCS(SA) and Mark A. J. Newman, MBBS, FRACS

Reply
Robert J. Cerfolio, MD

751 **Is Video-Assisted Thoracoscopic Surgery an Optimal Approach for Descending Necrotizing Mediastinitis?**
Shunsuke Endo, MD, Tsuyoshi Hasegawa, MD, Yukio Sato, MD, and Yasunori Sohara, MD

751 **Helicopter Injuries**
Raymond A. Dieter, Jr, MD

Reply
Riyad Karmy-Jones, MD

752 **Chronic Ischemic Mitral Regurgitation: Toward a Solution or Still an Enigma?**
Emmanuel Villa, MD, Pino Fundarò, MD, Andrea Moneta, MD, and Francesco Donatelli, MD

Reply
Joseph H. Gorman III, MD, and Robert C. Gorman, MD

753 **Optimizing Use of the Internal Thoracic Arteries for Total Myocardial Revascularization**
Lucian Stoica, MD, PhD, Sidney Chocron, MD, PhD, and Joseph Philippe Etievent, MD

Reply
Calin Vicol, MD

754 **Hemolysis Caused by Regurgitant Blood Flow With High Shear Stress: An Intractable Complication After Mitral Valve Repair**
Shin-ichi Oki, MD, and Yoshio Misawa, MD, PhD

Reply
Buu-Khanh Lam, MD, Delos M. Cosgrove III, MD, Sunil K. Bhudia, BS, MRCS, and A. Marc Gillinov, MD

755 **The Allen Test**
Zoltán Csiki, MD, Ildikó Garai, MD, and Zoltán Galajda, MD, PhD

Reply
Yasir Abu-Omar, MRCS, Shafi Mussa, MRCS, and David P. Taggart, FRCS

756 **Papillary Fibroelastomas and Other Cardiac Tumors Should Be Resected on an Urgent Basis**
Torsten Bossert, MD, Jan F. Gummert, MD, PhD and Friedrich Mohr, MD, PhD

ANNOUNCEMENTS

A-34 Information for Authors

A-39 Guidelines for Reviewers

A-41 Conditions for Publication Form

A-43 Events of Interest

417 Online Discussion Forum

432 Requirements for Recertification/Maintenance of Certification in 2005

442 Notice From the American Board of Thoracic Surgery Regarding Trainees and Candidates for Certification Who Are Called to Military Service Related to the War on Terrorism

449 Notice From the American Board of Thoracic Surgery

461 The Society of Thoracic Surgeons Policy Action Center

470 Southern Thoracic Surgical Association: Fifty-Second Annual Meeting

624 Member and Individual Subscriber Access to the Online *Annals*

A-47 Southern Thoracic Surgical Association Rules for Submission of Abstracts

A-48 Southern Thoracic Surgical Association Membership Requirements and Application

A-50 Classified Advertisements

A-57 Index to Advertisers

Number 3 March 2005

ORIGINAL ARTICLES: CARDIOVASCULAR

757 **CryoLife-O'Brien Stentless Valve: 10-Year Results of 402 Implants**
Mark F. O'Brien, FRACS, Michael A. H. Gardner, FRACS, Bruce Garlick, FRACS, Homayoun Jalali, MD, Julie A. Gordon, RN, Sarah L. Whitehouse, PhD, Wendy E. Strugnell, BAppSc, and Richard Slaughter, FRANZCR

767 **Cryopreserved Aortic Viable Homograft for Active Aortic Endocarditis**
Jean-Michel Grinda, MD, Jean-Luc Mainardi, MD, PhD, Nicola D'Attellis, MD, Marie-Odile Bricourt, MD, Alain Berrebi, MD, Jean-Noël Fabiani, MD, and Alain Deloche, MD

772 **Clinical Experience With Stentless Mitral Valve Replacement**
Friedrich W. Mohr, MD, PhD, Sven Lehmann, MD, Volkmar Falk, MD, PhD, Sebastian Metz, MD, Claudia Walther, MD, Nico Doll, MD, Ardawan Rastan, MD, Jan Gummert, MD, PhD, and Thomas Walther, MD, PhD

776 **The St. Jude Medical Cardiac Valve Prosthesis: A 25-Year Experience With Single Valve Replacement**
Robert W. Emery, MD, Christopher C. Krogh, Kit V. Arom, MD, PhD, Ann M. Emery, RN, Kathy Benyo-Albrecht, RN, Lyle D. Joyce, MD, PhD, and Demetre M. Nicoloff, MD, PhD

Invited Commentary
Alfred Nicolosi, MD

784 **A 10-Year Experience With the Carbomedics Cardiac Prosthesis**
Ryuji Tominaga, MD, Kazuhiro Kurisu, MD, Yoshie Ochiai, MD, Yukihiro Tomita, MD, Munetaka Masuda, MD, Shigeki Morita, MD, and Hisataka Yasui, MD

790 **Outcome of Medical and Surgical Treatment in Patients With Acute Type B Aortic Dissection**
Ron-Bin Hsu, MD, Yi-Lwun Ho, MD, Robert J. Chen, MD, MPH, Shoei-Shen Wang, MD, Fang-Yue Lin, MD, and Shu-Hsun Chu, MD

Invited Commentary
Marc R. Moon, MD

796 **Long-Term Integrity of Teflon Felt-Supported Suture Lines in Aortic Surgery**
Justus T. Strauch, MD, David Spielvogel, MD, Steven L. Lansman, PhD, Alexander L. Lauten, MS, Carol Bodian, DPh, and Randall B. Griepp, MD

801 **Emergency Coronary Artery Bypass Grafting Can Be Performed Safely Without Cardiopulmonary Bypass in Selected Patients**
Faraz Kerendi, MD, John D. Puskas, MD, MS, Joseph M. Craver, MD, William A. Cooper, MD, Ellis L. Jones, MD, Omar M. Lattouf, MD, PhD, J. David Vega, MD, and Robert A. Guyton, MD

807 **Impact of Off-Pump Coronary Bypass Grafting on the Prevalence of Adverse Perioperative Outcome in Women Undergoing Coronary Artery Bypass Grafting Surgery**
Jan Bucerius, MD, Jan F. Gummert, MD, PhD, Thomas Walther, MD, PhD, Michael A. Borger, MD, PhD, Nicolas Doll, MD, Volkmar Falk, MD, PhD, and Friedrich W. Mohr, MD, PhD

Invited Commentary
Paul Kurlansky, MD

814 **Off-Pump, In Situ Internal Thoracic Artery Grafting: A Durable Treatment for Single-Vessel Coronary Artery Disease**
Kerem M. Vural, MD, Zafer H. Iscan, MD, Ayşegul Kunt, MD, Erol Sener, MD, and Oguz Tasdemir, MD

819 **Effect of Diabetes on Outcome and Changes in Quality of Life After Coronary Artery Bypass Grafting**
Otso Järvinen, MD, PhD, Juhani Julkunen, PhD, Timo Saarinen, LicA(Psych), Jari Laurikka, MD, PhD, and Matti R. Tarkka, MD, PhD

825 **Different Profiles of Patients Who Require Dialysis After Cardiac Surgery**
Mario Gaudino, MD, Nicola Luciani, MD, Stefania Giungi, MD, Eugenio Caradonna, MD, Giuseppe Nasso, MD, Rocco Schiavello, MD, Giovanna Luciani, MD, and Gianfederico Possati, MD

Invited Commentary
Mark Stafford-Smith, MD

831 **Effects of the Postoperative Administration of Diltiazem on Renal Function After Coronary Artery Bypass Grafting**
Susumu Manabe, MD, Hiroyuki Tanaka, MD, PhD, Tomoya Yoshizaki, MD, Noriyuki Tabuchi, MD, PhD, Hirokuni Arai, MD, PhD, and Makoto Sunamori, MD, PhD

Invited Commentary
Eric W. Young, MD, and Marvin M. Kirsh, MD

837 **Determinants and Prognosis of Myocardial Damage After Coronary Artery Bypass Grafting**
Francesco Onorati, MD, Marisa De Feo, MD, PhD, Pasquale Mastroroberto, MD, Lucia Cristodoro, MD, Francesco Pezzo, MD, Attilio Renzulli, MD, PhD, FETCS, and Maurizio Cotrufo, MD, FETCS

846 **Optimal Method of Coronary Endarterectomy for Diffusely Diseased Coronary Arteries**
Hiroyuki Nishi, MD, Satoru Miyamoto, MD, Shuichiro Takanashi, MD, Hirokazu Minamimura, MD, Takumi Ishikawa, MD, Yasuyuki Kato, MD, and Yoshihiro Shimizu, MD

Invited Commentary
Oguz Tasdemir, MD, and Seref A. Kucuker, MD

854 **Transit-Time Flow Measurement is Essential in Coronary Artery Bypass Grafting**
Derek K. H. Leong, Venkataraman Ashok, Arulkumaran Nishkantha, MD, Yue Hong Shan, MD, and Eugene K. W. Sim, FRCS

Invited Commentary
Beat H. Walpoth, MD, FAHA

859 **P-Wave Signal-Averaged Electrocardiogram for Predicting Atrial Arrhythmia After Cardiac Surgery**
Nobuhiko Hayashida, MD, Takahiro Shojima, MD, Yoshinori Yokokura, MD, Hidetsugu Hori, MD, Kazuhiro Yoshikawa, MD, Hiroshi Tomoeda, MD, and Shigeaki Aoyagi, MD

865 **Association of High Intracellular, But Not Serum, Heat Shock Protein 70 With Postoperative Atrial Fibrillation**
Kaushik Mandal, MS, MRCS, Evelyn Torsney, PhD, Jan Poloniecki, DPhil, A. John Camm, MD, FRCP, Qingbo Xu, MD, PhD, and Marjan Jahangiri, FRCS

Invited Commentary
Jarle Vaage, MD, PhD

872 **Beat-to-Beat Effects of Intraaortic Balloon Pump Timing on Left Ventricular Performance in Patients With Low Ejection Fraction**
Jan J. Schreuder, MD, PhD, Francesco Maisano, MD, Andrea Donelli, MS, Jos R. C. Jansen, PhD, Pat Hanlon, RN, Jan Bovelander, CRNA, and Ottavio Alfieri, MD

881 **Early Ventricular Restraint After Myocardial Infarction: Extent of the Wrap Determines the Outcome of Remodeling**
Yoshiharu Enomoto, MD, Joseph H. Gorman III, MD, Sina L. Moainie, MD, Benjamin M. Jackson, MD, Landi M. Parish, SB, Theodore Plappert, CVT, Ahmad Zeeshan, MD, Martin G. St. John-Sutton, MBBS, and Robert C. Gorman, MD

888 **Recellularization of Decellularized Allograft Scaffolds in Ovine Great Vessel Reconstructions**
Ara Ketchedjian, MD, Alyce Linthurst Jones, MS, Paula Krueger, BS, Elliot Robinson, BS, Katrina Crouch, BS, Lloyd Wolfinbarger, Jr, PhD, and Richard Hopkins, MD

Invited Commentary
Paul Simon, MD, Marie-Theres Kasimir, MD, Erwin Rieder, MD, and Guenter Weigel, MD

897 **Prevention of Calcification of Bioprosthetic Heart Valve Cusp and Aortic Wall With Ethanol and Aluminum Chloride**
Jocelyn N. Clark, PhD, Matthew F. Ogle, BS, Paul Ashworth, BS, Richard W. Bianco, BS, and Robert J. Levy, MD

905 **Carbodiimide Treatment Dramatically Potentiates the Anticalcific Effect of Alpha-Amino Oleic Acid on Glutaraldehyde-Fixed Aortic Wall Tissue**
Peter Zilla, MD, PhD, Deon Bezuidenhout, PhD, and Paul Human, PhD

911 **Bradykinin Preconditioning Preserves Coronary Microvascular Reactivity During Cardioplegia–Reperfusion**
Jun Feng, MD, PhD, Cesario Bianchi, MD, PhD, Jianyi Li, MD, and Frank W. Sellke, MD

917 **Differential Effect of Heparin Coating and Complement Inhibition on Artificial Surface-Induced Eicosanoid Production**
Knut Tore Lappegård, MD, Johan Riesenfeld, PhD, Ole-Lars Brekke, MD, PhD, Grethe Bergseth, BS, John D. Lambris, PhD, and Tom Eirik Mollnes, MD, PhD

924 **Initial Experience With a Bicuspid Polytetrafluoroethylene Pulmonary Valve in 41 Children and Adults: A New Option for Right Ventricular Outflow Tract Reconstruction**
James A. Quintessenza, MD, Jeffrey P. Jacobs, MD, Victor O. Morell, MD, Jorge M. Giroud, MD, and Robert J. Boucek, MD

932 **Acute Hemodynamic Benefit of Left Ventricular Apex Pacing in Children**
Ward Y. Vanagt, MD, Xander A. Verbeek, PhD, Tammo Delhaas, MD, PhD, Marc Gewillig, MD, PhD, Luc Mertens, MD, PhD, Patrick Wouters, MD, PhD, Bart Meyns, MD, PhD, Willem J. Daenen, MD, and Frits W. Prinzen, PhD

937 **Selective Annuloplasty for Tricuspid Regurgitation in Children**
Jian Wang, MD, Yi-wu Liang, MD, and Jun-ichi Hayashi, MD

ORIGINAL ARTICLES: GENERAL THORACIC

942 **Tracheal Regeneration Following Tracheal Replacement With an Allogenic Aorta**
Emmanuel Martinod, MD, PhD, Agathe Seguin, MD, Muriel Holder-Espinasse, MD, Marianne Kambouchner, MD, Martine Duterque-Coquillaud, PhD, Jacques F. Azorin, MD, and Alain F. Carpentier, MD, PhD

Invited Commentary
Hermes Grillo, MD

950 **Impact of Recipient Age and Procedure Type on Survival After Lung Transplantation for Pulmonary Fibrosis**
Dan M. Meyer, MD, Leah Bennett Edwards, PhD, Fernando Torres, MD, Michael E. Jessen, MD, and Richard J. Novick, MD

Invited Commentary
Bryan Meyers, MD

959 **Current Surgical Intervention for Pulmonary Tuberculosis**
Shin-ichi Takeda, MD, Hajime Maeda, MD, Masanobu Hayakawa, MD, Noriyoshi Sawabata, MD, and Ryoji Maekura, MD

964 **Surgical Treatment of Tuberculous Abscess in the Chest Wall**
Motoki Sakuraba, MD, Yuzo Sagara, MD, and Hikotaro Komatsu, MD

968 **Comparison of Morbidity, 30-Day Mortality, and Long-Term Survival After Pneumonectomy and Sleeve Lobectomy for Non–Small Cell Lung Carcinoma**
Corinna Ludwig, MD, Erich Stoelben, MD, Manfred Olschewski, PhD, and Joachim Hasse, MD

974 **Comparison Between Clinical and Pathologic Staging in 2,994 Cases of Lung Cancer**
Angel López-Encuentra, MD, Ricardo García-Luján, MD, Juan José Rivas, MD, Jesús Rodríguez-Rodríguez, MD, Juan Torres-Lanza, MD, Gonzalo Varela-Simo, MD, and the Bronchogenic Carcinoma Cooperative Group of the Spanish Society of Pneumology and Thoracic Surgery

Invited Commentary
Nasser Altorki, MD

980 **Lung Cancer After Heart Transplantation: A 17-Year Experience**
Konstantinos Potaris, MD, Branislav Radovancevic, MD, Cynthia D. Thomas, RN, Igor Gregoric, MD, Ara A. Vaporciyan, MD, Shirley A. Riggs, MD, Rajko Radovancevic, MD, William K. Vaughn, PhD, and O. H. Frazier, MD

984 **Visual and Semiquantitative Analyses for F-18 Fluorodeoxyglucose PET Scanning in Pulmonary Nodules 1 cm to 3 cm in Size**
Hiroaki Nomori, MD, PhD, Kenichi Watanabe, MD, Takashi Ohtsuka, MD, Tsuguo Naruke, MD, PhD, Keiichi Suemasu, MD, PhD, and Kimiichi Uno, MD, PhD

Invited Commentary
Paul De Leyn, MD, PhD

990 **Surgically Induced Accelerated Local and Distant Tumor Growth is Significantly Attenuated by Selective COX-2 Inhibition**
Syed S. A. Qadri, FRCSI, Jiang-Huai Wang, PhD, John Calvin Coffey, AFRCSI, PhD, Mahmood Alam, FRCSI, Aonghus O'Donnell, FRCSI, Thomas Aherne, FRCSI, and Henry P. Redmond, FRCSI, MCh

996 **Can We Predict Long-Term Survival After Pulmonary Metastasectomy for Renal Cell Carcinoma?**
Sudish C. Murthy, MD, PhD, Kwhanmien Kim, MD, Thomas W. Rice, MD, Jeevanantham Rajeswaran, MS, Ronald Bukowski, MD, Malcolm M. DeCamp, MD, and Eugene H. Blackstone, MD

1004 **Factors Associated With Postoperative Delirium After Thoracic Surgery**
Bedrettin Yıldızeli, MD, M. Oğuzhan Özyurtkan, MD, Hasan F. Batırel, MD, Kemal Kuşcu, MD, Nural Bekiroğlu, PhD, and Mustafa Yüksel, MD

1010 **Cyclosporine Modulates the Response to Hypoxia-Reoxygenation in Pulmonary Artery Endothelial Cells**
Alexander S. Farivar, MD, Brendan C. Mackinnon-Patterson, BS, Andrew D. Barnes, Pharm D, Anton S. McCourtie, MBChB, and Michael S. Mulligan, MD

NEW TECHNOLOGY

1017 **Automatic Intraaortic Balloon Pump Timing Using an Intrabeat Dicrotic Notch Prediction Algorithm**
Jan J. Schreuder, MD, PhD, Alessandro Castiglioni, MD, Andrea Donelli, MS, Francesco Maisano, MD, Jos R. C. Jansen, PhD, Ramzi Hanania, MS, Pat Hanlon, RN, Jan Bovelander, CRNA, and Ottavio Alfieri, MD

Invited Commentary
William L. Holman, MD

1023 **Facilitated Minimally Invasive Left Ventricular Epicardial Lead Placement**
Nicolas Doll, MD, Ulrich T. Opfermann, MD, Ardawan J. Rastan, MD, Thomas Walther, MD, PhD, Hendrik Bernau, MD, Jan F. Gummert, MD, PhD, and Friedrich W. Mohr, MD, PhD

Invited Commentary
Lynda Mickleborough, MD

1026 **Palmar Microcirculation After Harvesting of the Radial Artery in Coronary Revascularization**
Karsten Knobloch, MD, Artur Lichtenberg, MD, Max Pichlmaier, MD, Sandra Tomaszek, MD, Alfons Krug, MD, and Axel Haverich, MD, PhD

Invited Commentary
Alan P. Kypson, MD, and W. Randolph Chitwood, Jr, MD

CASE REPORTS

e-Only Content

e21 **Polymerase Chain Reaction Amplification as a Diagnostic Tool in Culture-Negative Multiple-Valve Endocarditis**
Navid Madershahian, MD, Justus T. Strauch, MD, Martin Breuer, MD, Raimund Bruhin, MD, Eberhard Straube, MD, and Thorsten Wahlers, MD

e23 **Neoaortic Aneurysm After Stage I Norwood Reconstruction**
Afshin Ehsan, MD, Harbinder Singh, MD, Sara O. Vargas, MD, Joerg Sachweh, MD, and Richard A. Jonas, MD

e26 **Lung Abscess Due to Retained Gallstones With an Adenocarcinoma**
Scott G. Houghton, MD, Juan A. Crestanello, MD, Anh-Quan T. Nguyen, MD, and Claude Deschamps, MD

1031 **Submitral Left Ventricular Pseudoaneurysm**
Marjan Jahangiri, FRCS, David Sarkar, MRCP, Paul Quinton, FRCA, and David E. Ward, FRCP

1032 **Successful Outcome of Emergency Coronary Artery Bypass Grafting and Retrieval of Entrapped Stent, Angioplasty Balloon, and Guidewire**
Shishir Karthik, MBBS, MCh, Paul Silverton, MD, FRCP, Jonathan A. Blaxill, FRCP, and David J. O'Regan, MD, FRCS(C-Th)

1034 **Traumatic Innominate Artery Aneurysm 26 Years After Stab Injury**
Anunathan A. Reddi, FCS(SA), Mandhir M. Munasur, MBCHB, Rishendran R. Naidoo, MBCHB, and Dion D. Steer, MBCHB

1037 **Antihuman Factor V Antibodies After Use of Relatively Pure Bovine Thrombin**
Jeffrey H. Lawson, MD, PhD, Kellie A. Lynn, RN, Reed M. Vanmatre, MD, Taymon Domzalski, BA, Keith F. Klemp, BS, Thomas L. Ortel, MD, PhD, Laura E. Niklason, MD, PhD, and William Parker, PhD

1038 **Compression of Trachea and Left Main Bronchus by Arch Aneurysm**
Hiroshi Kumeda, MD, Yukihiro Tomita, MD, Shigeki Morita, MD, and Hisataka Yasui, MD

1040 **Cardiac Lymphoma Following Mitral Valve Replacement**
Nicolas M. Dürrleman, MD, Ismaïl El-Hamamsy, MD, Roland G. Demaria, MD, PhD, Michel Carrier, MD, Louis P. Perrault, MD, PhD, and Bernard Albat, MD

1042 **Successful Single-Lung Fontan Operation in an Adult: 5-Year Follow-Up**
Abdulaziz Al-Khaldi, MD, Edgar G. Chedrawy, MD, Christo I. Tchervenkov, MD, and Dominique Shum-Tim, MD

1044 **One-Stage Unifocalization and Palliative Right Ventricular Outflow Tract Reconstruction**
Takeshi Shinkawa, MD, Masaaki Yamagishi, MD, Keisuke Shuntoh, MD, Akiyuki Takahashi, MD, Kyoko Hayashida, MD, and Nobuo Kitamura, MD

1047 **Alternative Fontan Connection for Apicocaval Juxtaposition**
Hong Gook Lim, MD, Woong-Han Kim, MD, Sam-Se Oh, MD, Cheong Lim, MD, Soo-Jin Kim, MD, Young Tak Lee, MD, and Soo-Cheol Kim, MD

1049 **Bilateral Minithoractomy Repair of Aortic Coarctation With Ventricular Septal Defect and Persistent Ductus Arteriosus**
Jie Ma, MD, Yongzhi Deng, MD, and Xinhua Li, MD

1051 **Living-Donor Lobar Lung Transplantation for Bronchiolitis Obliterans After Bone Marrow Transplantation**
Yoshifumi Sano, MD, Hiroshi Date, MD, Itaru Nagahiro, MD, Motoi Aoe, MD, and Nobuyoshi Shimizu, MD

1052 **Resection of a Thoracic Duct Lymphangioma Using Video-Assisted Thoracoscopic Surgery**
Joseph C. Moran, MD, Jean-Philippe Bocage, MD, FACS, and Robert J. Caccavale, MD, FACS

1054 ***Candida* Infection in a Stent Inserted for Tracheal Stenosis After Heart Lung Transplantation**
Kook-Yang Park, MD, and Chul-Hyun Park, MD

1057 **Recalcitrant Chest Wall *Aspergillus Fumigatus* Osteomyelitis After Coronary Artery Bypass Grafting: Successful Radical Surgical and Medical Management**
Mohammed M. Elahi, MD, Amit Mitra, MD, FRCS, Julia Spears, MD, and James B. McClurken, MD, FACS

1059 **Successful Surgical Treatment of Aortoesophageal Fistula After Esophagectomy**
Riki Okita, MD, Hidenori Mukaida, MD, Wataru Takiyama, MD, Mamoru Oheda, MD, Naomichi Uchida, MD, and Hiroshi Ishihara, MD

IMAGES IN CARDIOTHORACIC SURGERY

e-Only Content

e28 **Late Perforation of the Aortic Root by an Atrial Septal Defect Occlusion Device**
Doan Baykut, MD, PhD, Sven E. Doerge, MD, Martin Grapow, MD, Jens Bremerich, MD, PhD, and Hans-Reinhard Zerkowski, MD, PhD

1062 **Hemodynamic Compromise From a Right Coronary Artery Pseudoaneurysm After Remote Stent Placement**
I-Hui Wu, MD, George J. Koullias, MD, Michael L. Dewar, MD, and Glen A. Henry, MD

1063 **Plombage Thoracoplasty With Lucite Balls**
Cagatay Saim Tezel, MD, and Peter Goldstraw, FRCS

HOW TO DO IT

1064 **A New Device for Ensuring the Correct Length of Artificial Chordae in Mitral Valvuloplasty**
Yoshiro Matsui, MD, Yasuhisa Fukada, MD, Yuji Naito, MD, Shigeyuki Sasaki, MD, and Keishu Yasuda, MD

1066 **D-Transposition of the Great Arteries With an Aortopulmonary Window: A New Corrective Technique**
Krishna Adluri, MS, FRCS, David J. Barron, MD, MRCP, FRCS(CT), and William J. Brawn, FRCS, FRACS

1068 **How To Tailor A "π" Graft for Complex Myocardial Revascularization: A Variant of the Mammary Loop Technique**
Lucian Stoica, MD, PhD, Sidney Chocron, MD, PhD, Pierre-Emmanuel Falcoz, MD, Djamel Kaili, MD, and Joseph-Philippe Etievent, MD

1070 **A Simple and Effective Method of Preventing Inadvertent Occlusion of Chest Tube Drains: The Corrugated Tubing Splint**
Anastasios K. Konstantakos, MD

REVIEWS

1072 **Calcification of Tissue Heart Valve Substitutes: Progress Toward Understanding and Prevention**
Frederick J. Schoen, MD, PhD, and Robert J. Levy, MD

1081 **Role of Angiotensin-Converting Enzyme Inhibitors in the Coronary Artery Bypass Patient**
Harold L. Lazar, MD

REPORT

1090 **2004 Meeting Southern Thoracic Surgical Association**
John H. Calhoon, MD

CORRESPONDENCE

1092 **The Third Option**
A. Sampath Kumar, MCh

Reply
Robert M. Sade, MD

1092 **Transesophageal Echocardiography for Pulmonary Embolectomy**
Peter Rosenberger, MD, Stanton K. Shernan, MD, Tomislav Mihaljevic, MD, and Holger K. Eltzschig, MD

Reply
Georgios P. Georghiou, MD, Eldad Erez, MD, Bernardo A. Vidne, MD, and Alex Sagie, MD

1093 **Arterial Pressure and Pump Flow Rate During Long-Term Pulsatile and Nonpulsatile Cardiac Support**
Akif Ündar, PhD, and John L. Myers, MD

Reply
Stefan Klotz, MD, and Christof Schmid, MD

1095 **MCC-135 Diminishes the Egress of CK-MB but Not of Troponin-I From Cardiomyocytes During Reperfusion**
Jiri T. Beranek, MD

Reply
William M. Yarbrough, MD, and Francis G. Spinale, MD, PhD

1096 **Markers of Endothelial Activation During Cardiopulmonary Bypass**
Yoshio Misawa, MD

Reply
Vibeke Videm, MD, PhD

1096 **Parasternal Wire Technique and Sternal Dehiscence**
Tomaso Bottio, MD, PhD, Vincenzo Tarzia, MD, and Claudio Muneretto, MD

1097 **Total Aortic Arch Replacement**
Mert Yilmaz, MD

1097 **Mediastinal Parathyroid Adenoma**
Thomas J. Birdas, MD, and Robert J. Keenan, MD

1098 **Simultaneous Bilateral Apical Bullectomy Through Access From Only One Side**
Claudio Rossella, MD, Paolo Buniva, MD, Alessandro Aluffi, MD, and Stefano Nazari, MD

1098 **Should All Stage-One Norwood Patients Receive a Prolonged Period of Postoperative Mechanical Circulatory Support?**
Georg Rellensmann, MD, Thomas Krasemann, MD, and Hans-Gerd Kehl, MD

1099 **Lymphangiomatosis Possibly With Gorham's Disease and Not Lymphangioma**
Sameh Ibrahim Sersar, MBBCH

Reply
Kostas Papagiannopoulos, MD, Dirk Van Raemdonck, PhD, Karen De Boeck, PhD, and Tony Lerut, PhD

REVIEW OF RECENT BOOKS

1100 **Myocardial Protection**
Danny Ramzy, MD, and Vivek Rao, MD, PhD

ANNOUNCEMENTS

A-34 **Information for Authors**

A-39 **Guidelines for Reviewers**

A-41 **Conditions for Publication Form**

A-43 Events of Interest

795 Online Discussion Forum

813 Requirements for Recertification/Maintenance of Certification in 2005

818 Notice From the American Board of Thoracic Surgery Regarding Trainees and Candidates for Certification Who Are Called to Military Service Related to the War on Terrorism

864 Notice From the American Board of Thoracic Surgery

904 The Society of Thoracic Surgeons Policy Action Center

923 Southern Thoracic Surgical Association: Fifty-Second Annual Meeting

936 Member and Individual Subscriber Access to the Online *Annals*

A-47 Southern Thoracic Surgical Association Rules for Submission of Abstracts

A-48 Southern Thoracic Surgical Association Membership Requirements and Application

A-50 Classified Advertisements

A-55 Index to Advertisers

Number 4 April 2005

EDITORIAL

1101 **Cardiac Assistance From Skeletal Muscle: Should We Be Downhearted?**
Stanley Salmons, MS, PhD

THE STATISTICIAN'S PAGE

1104 **Quantitative Methods for Tracking Cognitive Change 3 Years After Coronary Artery Bypass Surgery**
Sarah J. E. Barry, MS, Scott L. Zeger, PhD, Ola A. Selnes, PhD, Maura A. Grega, MSN, Louis M. Borowicz, Jr, MS, and Guy M. McKhann, MD

ORIGINAL ARTICLES: GENERAL THORACIC

1110 **Surgical Treatment of Esophageal High-Grade Dysplasia**
Michael F. Reed, MD, George Tolis, Jr, MD, Barish H. Edil, MD, James S. Allan, MD, Dean M. Donahue, MD, Henning A. Gaissert, MD, Ashby C. Moncure, MD, John C. Wain, MD, Cameron D. Wright, MD, and Douglas J. Mathisen, MD

1116 **A Retrospective Analysis of Locally Advanced Esophageal Cancer Patients Treated With Neoadjuvant Chemoradiation Therapy Followed by Surgery or Surgery Alone**
Kenneth A. Kesler, MD, Paul R. Helft, MD, Elizabeth A. Werner, MS, Neel P. Jain, MS, Jo Ann Brooks, DNS, John M. DeWitt, MD, Julia K. Leblanc, MD, Naomi S. Fineberg, PhD, Lawrence H. Einhorn, MD, and John W. Brown, MD

1122 **Esophageal Leiomyoma: A 40-Year Experience**
Christopher J. Mutrie, MD, Dean M. Donahue, MD, John C. Wain, MD, Cameron D. Wright, MD, Henning A. Gaissert, MD, Hermes C. Grillo, MD, Douglas J. Mathisen, MD, and James S. Allan, MD

1126 **Effect of Lower Esophageal Sphincter Distension and Acidification on Esophageal Pressure and Electromyographic Activity: The Identification of the "Sphinctero-Esophageal Excitatory Reflex"**
Ahmed Shafik, MD, PhD, Ismail Shafik, MD, MCh, Olfat El-Sibai, MD, PhD, and Randa Mostafa, MD, PhD

Invited Commentary
Gail Darling, MD, FRCSC, FACS

1132 **Pulmonary Carcinoid Tumors With Cushing's Syndrome: An Aggressive Variant or Not?**
Subrato J. Deb, MD, Francis C. Nichols, MD, Mark S. Allen, MD, Claude Deschamps, MD, Stephen D. Cassivi, MD, and Peter C. Pairolero, MD

1137 **Survival After Pathological Stage IA Nonsmall Cell Lung Cancer: Tumor Size Matters**
Özcan Birim, MD, A. Pieter Kappetein, MD, PhD, Johanna J. M. Takkenberg, MD, PhD, Rob J. van Klaveren, MD, PhD, and Ad J. J. C. Bogers, MD, PhD

1142 **Impact of Large Tumor Size on Survival After Resection of Pathologically Node Negative (pN0) Non–Small Cell Lung Cancer**
Shin-ichi Takeda, MD, Shimao Fukai, MD, Hikotaro Komatsu, MD, Etsuo Nemoto, MD, Kenji Nakamura, MD, and Masaru Murakami, MD

1147 **Bronchovascular Versus Bronchial Sleeve Resection for Central Lung Tumors**
Henning F. Lausberg, MD, Thomas P. Graeter, MD, Dietmar Tscholl, MD, Olaf Wendler, MD, PhD, and Hans-Joachim Schäfers, MD, PhD

1153 **Local Control of Disease Related to Lymph Node Involvement in Non-Small Cell Lung Cancer After Sleeve Lobectomy Compared With Pneumonectomy**
Young Tae Kim, MD, PhD, Chang Hyun Kang, MD, Sook Whan Sung, MD, PhD, and Joo Hyun Kim, MD, PhD

1162 **Nocturnal Hypoxemia After Lobectomy for Lung Cancer**
Hideki Kawai, MD, PhD, Yoshimasa Tayasu, RPT, Ayaka Saitoh, RPT, Kyoko Ooyama, RN, Yuichi Tanaka, MD, Yoshihiro Minamiya, MD, PhD, and Junichi Ogawa, MD, PhD

1167 **Characterization and Importance of Air Leak After Lobectomy**
Ikenna Okereke, MD, Sudish C. Murthy, MD, PhD, Joan M. Alster, MS, Eugene H. Blackstone, MD, and Thomas W. Rice, MD

1174 **The Surgical Management of Superior Sulcus Tumors: A Retrospective Review With Long-Term Follow-Up**
Melvyn Goldberg, MD, Dipin Gupta, MD, Aaron R. Sasson, MD, Benjamin Movsas, MD, Corey J. Langer, MD, Alexandra L. Hanlon, PhD, MD, Hao Wang, MS, and Walter J. Scott, MD

1180 **Can Aberrant Promoter Hypermethylation of CpG Islands Predict the Clinical Outcome of Non-Small Cell Lung Cancer After Curative Resection?**
Young Tae Kim, MD, PhD, Seung Hee Lee, BS, Sook Whan Sung, MD, PhD, and Joo Hyun Kim, MD, PhD

1189 **Adenosine A2A Receptor Agonist Improves Cardiac Dysfunction From Pulmonary Ischemia-Reperfusion Injury**
T. Brett Reece, MD, Victor E. Laubach, PhD, Curtis G. Tribble, MD, Thomas S. Maxey, MD, Peter I. Ellman, MD, Patrick S. Warren, BS, Andrew M. Schulman, MD, Joel Linden, PhD, John A. Kern, MD, and Irving L. Kron, MD

1196 **Vacuum-Assisted Closure for the Treatment of Complex Chest Wounds**
James O'Connor, MD, Amy Kells, MD, PhD, Sharon Henry, MD, and Thomas Scalea, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

1201 **Cognitive Outcomes Three Years After Coronary Artery Bypass Surgery: A Comparison of On-Pump Coronary Artery Bypass Graft Surgery and Nonsurgical Controls**
Ola A. Selnes, PhD, Maura A. Grega, MSN, Louis M. Borowicz, Jr, MS, Sarah Barry, MS, Scott Zeger, PhD, William A. Baumgartner, MD, and Guy M. McKhann, MD

1210 **In-Hospital Patients Exposed to Clopidogrel Before Coronary Artery Bypass Graft Surgery: A Word of Caution**
Raimondo Ascione, MD, MCh, Arup Ghosh, FRCS, Chris A. Rogers, PhD, Alan Cohen, FRCA, Chris Monk, FRCA, and Gianni D. Angelini, MD, MCh

1217 **Noninvasive Dynamic Assessment With Transthoracic Echocardiography of a Composite Arterial Y-Graft Achieving Complete Myocardial Revascularization**
Giuseppe Gatti, MD, Corrado Bentini, MD, Giuseppe Maffei, MD, Fabio Ferrari, MD, Maurizio Dondi, MD, Pasqua Pacilli, MD, and Peppino Pugliese, MD

1225 **Midterm Follow-Up After Minimally Invasive Direct Coronary Artery Bypass Grafting Versus Percutaneous Coronary Intervention Techniques**
Sandra Fraund, MD, Gunhild Herrmann, PhD, Anja Witzke, Jürgen Hedderich, Georg Lutter, PhD, Michael Brandt, MD, Andreas Böning, PhD, and Jochen Cremer, PhD

1232 **Revascularization of the Right Coronary Artery: Grafting or Percutaneous Coronary Intervention?**
Pierre-Emmanuel Falcoz, MD, Sidney Chocron, MD, PhD, Christine Binquet, MD, PhD, Lucian Stoica, MD, Djamel Kaili, MD, Catherine Quantin, MD, PhD, and Joseph-Philippe Etievent, MD

1240 **Pulmonary Embolectomy for Acute Massive Pulmonary Embolism**
Christine Dauphine, MD, and Bassam Omari, MD

1245 **Risk of Spinal Cord Injury After Operations of Recurrent Aneurysms of the Descending Aorta**
Jorge Flores, MD, Norihiko Shiiya, MD, PhD, Takashi Kunihara, MD, PhD, Kenji Matsuzaki, MD, and Keishu Yasuda, MD, PhD

Invited Commentary
R. Scott Mitchell, MD

1250 **Less-Invasive Surgical Extraction of Problematic or Infected Permanent Transvenous Pacemaker System**
Jen-Ping Chang, MD, Mien-Cheng Chen, MD, G. Bih-Fang Guo, MD, PhD, and Chiung-Lun Kao, MD

1255 **Depression Predicts Mortality Following Cardiac Valve Surgery**
P. Michael Ho, MD, Frederick A. Masoudi, MD, MSPH, John A. Spertus, MD, MPH, Pamela N. Peterson, MD, A. Laurie Shroyer, PhD, Martin McCarthy, Jr, PhD, Frederick L. Grover, MD, Karl E. Hammermeister, MD, and John S. Rumsfeld, MD, PhD

1260 **Mitral Repair Versus Replacement for Ischemic Mitral Regurgitation**
Osman O. Al-Radi, MBBS, Peter C. Austin, PhD, Jack V. Tu, MD, Tirone E. David, MD, and Terrence M. Yau, MD, MS

1268 **An Annular Prosthesis for the Treatment of Functional Mitral Regurgitation: Finite Element Model Analysis of a Dog Bone–Shaped Ring Prosthesis**
Francesco Maisano, MD, Alberto Redaelli, PhD, Monica Soncini, PhD, Emiliano Votta, MS, Lorenzo Arcobasso, BS, and Ottavio Alfieri, MD

1276 **Midterm Outcomes Using the Physio Ring in Mitral Valve Reconstruction: Experience in 492 Patients**
Kevin D. Accola, MD, Meredith L. Scott, MD, Paul A. Thompson, MD, George J. Palmer III, MD, Mark E. Sand, MD, and George Ebra, EdD

1284 **Comparative Evaluation of Small-Size Sorin Slimline and St. Jude HP Heart Valve Prostheses**
Eduardo Otero, MD, PhD, José L. Pomar, MD, PhD, José M. Revuelta, MD, PhD, and Juan J. Rufilanchas, MD

1291 **Impact of the Improvement of Valve Area Achieved With Aortic Valve Replacement on the Regression of Left Ventricular Hypertrophy in Patients With Pure Aortic Stenosis**
Giordano Tasca, MD, Federico Brunelli, MD, Marco Cirillo, MD, Margherita Dalla Tomba, MD, Zen Mhagna, MD, Giovanni Troise, MD, and Eugenio Quaini, MD

Invited Commentary
Jean G. Dumesnil, MD

1297 **Multiple Risk Assessment of Cardiovascular Surgery in Chronic Renal Failure Patients**
Bartlomiej Witczak, MD, Anders Hartmann, MD, PhD, and Jan L. Svennevig, MD, PhD

1303 **Early Experience With Activated Recombinant Factor VII for Intractable Hemorrhage After Cardiovascular Surgery**
Michael E. Halkos, MD, Jerrold H. Levy, MD, Edward Chen, MD, V. Seenu Reddy, MD, Omar M. Lattouf, MD, Robert A. Guyton, MD, and Howard K. Song, MD, PhD

1307 **Use of a Maze to Detect Cognitive Dysfunction in a Porcine Model of Hypothermic Circulatory Arrest**
Christian Hagl, MD, Donald J. Weisz, PhD, Nawid Khaladj, MD, Matthew M. Griepp, David Spielvogel, MD, Bo-Yi Yang, PhD, Richard A. de Asla, BS, Carol A. Bodian, DrPH, and Randall B. Griepp, MD

Invited Commentary
Eline F. Bruggemans, MSc, Anton van Boxtel, MSc, and Hans A. Huysmans, MD, PhD

1316 **pH-Stat Versus α-Stat Acid–Base Management Strategy During Hypothermic Circulatory Arrest Combined With Embolic Brain Injury**
Sebastian Dahlbacka, MS, Janne Heikkinen, MS, Timo Kaakinen, MS, Päivi Laurila, MD, PhD, Vilho Vainionpää, MD, PhD, Kai Kiviluoma, MD, PhD, Timo Salomäki, MD, PhD, Hannu Tuominen, MD, PhD, Pasi Ohtonen, MS, Fausto Biancari, MD, PhD, Pasi Lepola, MS, and Tatu Juvonen, MD, PhD

1326 **Nafamostat Preserves Neutrophil Deformability and Reduces Microaggregate Formation During Simulated Extracorporeal Circulation**
Yuji Hiramatsu, MD, PhD, Satoshi Homma, MD, PhD, Yukio Sato, MD, PhD, Shoko Sato, BMT, Kanji Matsuzaki, MD, Osamu Shigeta, MD, PhD, and Yuzuru Sakakibara, MD, PhD

1333 **Is the Myofibrillarlytic Myocyte a Forme Fruste Apoptotic Myocyte?**
Navneet Narula, MD, Jagat Narula, MD, PhD, Paul J. Zhang, MD, Nezam Haider, PhD, Puthiyaveettil N. Raghunath, PhD, Robin Brittin, MS, Joseph H. Gorman III, MD, Robert C. Gorman, MD, and John E. Tomaszewski, MD

Invited Commentary
Ian M. C. Dixon, PhD, and Josh E. Raizman, BSc

1338 **Principal Strain Orientation in the Normal Human Left Ventricle**
Brian P. Cupps, PhD, Benjamin J. Pomerantz, MD, Marc D. Krock, MD, Joseph Villard, MSEE, Joseph Rogers, MD, Nader Moazami, MD, and Michael K. Pasque, MD

1344 **Multislice Computed Tomography for Preoperative Evaluation of Right Ventricular Volumes and Function: Comparison With Magnetic Resonance Imaging**
Alexander Lembcke, MD, Pascal M. Dohmen, MD, Marc Dewey, MD, Christian Klessen, MD, Thomas Elgeti, MD, Kay-Geert A. Hermann, MD, Wolfgang F. Konertz, MD, PhD, Bernd Hamm, MD, and Dietmar E. Kivelitz, MD

1352 **Sternal Nourishment in Various Conditions of Vascularization**
Alexander A. Fokin, MD, PhD, Francis Robicsek, MD, PhD, Thomas N. Masters, PhD, Alex Fokin, Jr, BS, Mark K. Reames, MD, and James E. Anderson, Jr, MD

1358 **Operative Results and Outcomes in Children With Shone's Anomaly**
John W. Brown, MD, Mark Ruzmetov, MD, PhD, Palaniswamy Vijay, PhD, Mark H. Hoyer, MD, Donald Girod, MD, Mark D. Rodefeld, MD, and Mark W. Turrentine, MD

1366 **Aortic Valve Prolapse Associated With Outlet-Type Ventricular Septal Defect**
Shuenn-Nan Chiu, MD, Jou-Kou Wang, MD, PhD, Ming-Tai Lin, MD, En-Ting Wu, MD, Frank L. Lu, MD, Chung-I Chang, MD, Yih-Sharng Chen, MD, PhD, Ing-Sh Chiu, MD, PhD, Hung-Chi Lue, MD, and Mei-Hwan Wu, MD, PhD

Invited Commentary
Makoto Ando, MD

NEW TECHNOLOGY

1372 **Robotic Mitral Valve Annuloplasty With Double-Arm Nitinol U-Clips**
Clifton C. Reade, MD, Curtis E. Bower, MD, B. Marcus Bailey, MD, David M. Maziarz, MD, Saqib Masroor, MD, Alan P. Kypson, MD, L. Wiley Nifong, MD, and W. Randolph Chitwood Jr, MD, FACS

Invited Commentary
Jeffrey P. Gold, MD

1378 **MagScrew Total Artificial Heart In Vivo Performance Above 200 Beats Per Minute**
Soren Schenk, MD, Stephan Weber, Dipl Ing, Viviane Luangphakdy, MSBME, Ryan S. Klatte, BSBME, Christine R. Flick, BSBME, Ji-Feng Chen, BS, Michael W. Kopcak, Jr, BA, Yoshio Ootaki, MD, PhD, Keiji Kamohara, MD, Gordon B. Hirschman, MEng EE, Nicholas G. Vitale, BSME, Peter A. Chapman, Jr, BSME PE, William A. Smith, D Eng PE, and Kiyotaka Fukamachi, MD, PhD

Invited Commentary
William L. Holman, MD

1384 **A New Method of Temporary Epicardial Atrioventricular Pacing Utilizing Bipolar Pacing Leads**
Shafqat Hasan, FRCS(CTh), and C. Terence Lewis, FRCS

Invited Commentary
Ari Halldorsson, MD

CASE REPORTS

1388 **Heparin-Induced Thrombocytopenia Associated With Bilateral Adrenal Hemorrhage After Coronary Artery Bypass Surgery**
Faisal G. Bakaeen, MB, BChir, Jon-Cecil M. Walkes, MD, and Michael J. Reardon, MD

1390 **Psoriasis-Induced Postoperative Cardiac Failure**
Pankaj K. Jha, MRCSEd, Satish R. Das, FRCS, Ghassan S. Musleh, FRCS, Suresh Lakshmanan, FRCA, Timothy P. Kingston, MRCP, and Abdul K. Deiraniya, FRCS

1392 **Left Atrial Appendage Aneurysm**
Alok Mathur, MCh, Kenton J. Zehr, MD, Lawrence J. Sinak, MD, and Robert F. Rea, MD

1393 **Aortic Valve-Sparing Procedure With Cusp Elongation and Free Edge Reinforcement for Bicuspid Aortic Valve**
Francois Dagenais, MD, Richard Bauset, MD, and Patrick Mathieu, MD

1395 **Reoperation of the Kay-Shiley Disc Valve 35 Years After Replacement**
Shogo Nakayama, MD, PhD, Michihito Nonaka, MD, and Osamu Ishida, MD

1397 **Stentless Bioprosthetic Aortic Valve Replacement After a Homograft Root Replacement: Toronto SPV Implantation After a Homograft Root**
Faisal G. Bakaeen, MB, BChir, Jon-Cecil M. Walkes, MD, and Michael J Reardon, MD

1399 **Isolated Unilateral Absence of Right Proximal Pulmonary Artery: Surgical Repair and Follow-Up**
Kristin Welch, MD, Frank Hanley, MD, Troy Johnston, MD, Colleen Cailes, RDCS, and Maully J. Shah, MBBS

1402 **Epitheloid Hemangioendothelioma of the Heart in Infancy**
Turkan Tansel, MD, Ümrah Aydogan, MD, Dilek Yilmazbayhan, MD, Bilge Bilgiç, MD, Misten Demiryont, MD, and Ertan Onursal, MD

1406 **Sternocleidomastoid Myocutaneous Esophagoplasty for Benign Cervical Stricture**
Deborah K. Cunningham, MD, Scott J. Stern, MD, and Hugh F. Burnett, MD

1407 **Primary Pulmonary Meningioma First Suspected of Being a Lung Metastasis**
Jean Picquet, MD, Isabelle Valo, MD, Yann Jousset, MD, and Bernard Enon, MD

1409 **A Direct Measurement of Serum Amylase Levels Produced by Lung Cancer**
Mitsuaki Sakai, MD, Shigemi Ishikawa, MD, PhD, Tatsuo Yamamoto, MD, PhD, Masataka Onizuka, MD, PhD, Yuzuru Sakakibara, MD, PhD, and Masayuki Noguchi, MD, PhD

1411 **Posterior Intrathoracic Neurinoma Cure: A Transforaminal Resection After a Thoracotomy**
Jean Ader Jules, MA, MD, Jose M. Guarnieri, MD, Barbara Alkofer, MD, Jean Philippe Le Rochais, MD, and Philippe Icard, MD

1413 **A Rare Inferior Middle Mediastinal Tumor Resection Under Extra-Corporeal Circulation**
Mehrdad Arab, MD, Claire Danel, MD, Nicola d'Attellis, MD, Karine Juvin, MD, Anne Hernigou, MD, Jean Noel Fabiani, MD, and Marc Riquet, MD, PhD

1415 **Multiple Pulmonary Nodules and Underlying Head and Neck Cancer**
Fabrice Barlesi, MD, Céline Gimenez, MD, Christophe Doddoli, MD, Bruno Chetaille, MD, Bruno Guelfucci, MD, Jean-Pierre Kleisbauer, MD, and Pascal Thomas, MD

1417 **Massive Recurrent Anterior Diaphragmatic Hernia, Coronary Artery Disease, and Valvular Heart Disease**
Mark W. Huang, MD, and J. Nilas Young, MD

IMAGES IN CARDIOTHORACIC SURGERY

1420 **The Longest Functioning Apical Left Ventricular to Descending Aortic Valve Conduit**
Leisa J. Freeman, MRCP, Marc R. de Leval, MD, FRCS, and Victor T. Tsang, MD, FRCS

1421 **Large Organized Parietal Thrombus of the Right Ventricle After Aortic Valve Prosthetic Implantation 5 Years Previously**
Christian Kersting, MD, and Horst Buerger, MD, PhD

HOW TO DO IT

1422 **The "Eaves" Technique for Distal Anastomosis in Aortic Arch Replacement**
Masao Yoshitatsu, MD, Fumikazu Nomura, MD, Koichi Toda, MD, Akira Katayama, MD, Kentaro Tamura, MD, Keijiro Katayama, MD, and Katsuhiko Ihara, MD

1425 **Using Fascia Lata to Treat Infective Aortic False Aneurysm**
Ichiya Yamazaki, MD, PhD, Yukio Ichikawa, MD, PhD, Masanori Ishii, MD, PhD, Toshiyuki Hamada, MD, and Hirokazu Kajiwara, MD, PhD

1428 **Transposition of the Great Arteries and Quadricuspid Pulmonary Valve: An Unusual Combination**
Marco Ricci, MD, Gordon A. Cohen, MD, PhD, Ergin Kocyildirim, MD, Sachin Khambadkone, MD, and Martin J. Elliott, MD

1431 **A New, Easy Method for Putting "U" Stitches Inside the Chest Wall**
Atsushi Watanabe, MD, Toshiaki Watanabe, MD, Hiroki Satoh, MD, Tohru Mawatari, MD, Hisayoshi Ohsawa, MD, Noriyuki Takahashi, MD, and Tomio Abe, MD

REVIEWS

1433 **In the Footsteps of Senning: Lessons Learned From Atrial Repair of Transposition of the Great Arteries**
Ali Dodge-Khatami, MD, PhD, Alexander Kadner, MD, Felix Berger, Hitendu Dave, MD, Marko I. Turina, MD, and René Prêtre, MD

1445 **Animal Models of Heart Failure: What Is New?**
Eric Monnet, DVM, PhD, and Juan Carlos Chachques, MD, PhD

REPORT FROM THE WORKFORCE ON EVIDENCE-BASED SURGERY

1454 **The Society of Thoracic Surgeons Practice Guideline Series: Aspirin and Other Antiplatelet Agents During Operative Coronary Revascularization (Executive Summary)**
Victor A. Ferraris, MD, PhD, Suellen P. Ferraris, PhD, David J. Moliterno, MD, Philip Camp, MD, Jeanine M. Walenga, PhD, Harry L. Messmore, MD, Walter P. Jeske, PhD, Fred H. Edwards, MD, David Royston, MD, David M. Shahian, MD, Eric Peterson, MD, Charles R. Bridges, MD, ScD, and George Despotis, MD

CORRESPONDENCE

1462 **Do Off-Pump Surgical Procedures Really Improve Memory?**
Ola A. Selnes, PhD

Reply
Jeffrey D. Lee, MD, Shay J. Lee, MD, William T. Tsushima, PhD, William T. Lau, BS, David Johnson, PhD, Helen Petrovitch, MD, and Collin R. Dang, MD

1463 **Pulmonary Artery Banding Still as an Important Role in the Treatment of Congenital Heart Disease**
Naoki Yoshimura, MD, Masahiro Yamaguchi, MD, Shigeteru Oka, MD, Masahiro Yoshida, MD, and Hirohisa Murakami, MD

Reply
Hiroo Takayama, MD, Masahide Chikada, MD, Shinichi Takamoto, MD, Akihiko Sekiguchi, MD, and Akira Ishizawa, MD

1464 **Hemoptysis**
Sameh Ibrahim Sersar, MD, Hytham Elsayed AbdelMooty, MBBCH, Mona Mohammed Hafez, MD, and Mohammed Fouad Ismail, MS

1465 **Endothelialization and Functional Neointima on Vascular Grafts in Humans**
Yasuko Tomizawa, MD

Reply
Thorsten Walles, MD, and Heike Mertsching, PhD

1466 **Neointima in Vascular Prostheses: The Jury is Still Out**
Ares Protopapas, FRCS

Reply
Thorsten Walles, MD, and Heike Mertsching, PhD

1467 **Creatine Kinase**
Michelle Petrou, MBBS, Marialena Gregoriades, MRCP, and Vassilios Vassiliou, MBBS

Reply
George M. Palatianos, MD

1467 **Pneumonectomy Versus Sleeve Lobectomy for Lung Cancer**
Thomas J. Birdas, MD

REVIEW OF RECENT BOOKS

1468 **A Practical Atlas of Congenital Heart Disease by Audrey Smith and Roxane McKay**
Tom R. Karl, MD, and Lars Nolke, FRCS C-Th

ANNOUNCEMENTS

A-40 **Information for Authors**

A-45 **Guidelines for Reviewers**

A-47 **Conditions for Publication Form**

A-49 **Events of Interest**

1125 **Online Discussion Forum**

1254 **Requirements for Recertification/Maintenance of Certification in 2005**

1283 **Notice From the American Board of Thoracic Surgery Regarding Trainees and Candidates for Certification Who Are Called to Military Service Related to the War on Terrorism**

1302 **Notice From the American Board of Thoracic Surgery**

1315 **The Society of Thoracic Surgeons Policy Action Center**

1325 **Southern Thoracic Surgical Association: Fifty-Second Annual Meeting**

1357 The Society of Thoracic Surgeons: Forty-Second Annual Meeting

1365 Member and Individual Subscriber Access to the Online *Annals*

A-55 Classified Advertisements

A-63 Index to Advertisers

Number 5 May 2005

ANNOUNCEMENT

1469 **Editorial Board Changes**

EDITORIAL

1470 **The Future of Cardiac Surgery: The Times, They Are a Changin'**
Bruce Lytle, MD, and Michael Mack, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

1473 **Feasibility of Valve Repair for Regurgitant Bicuspid Aortic Valves—An Echocardiographic Study**
Patrick J. Nash, MB, MRCPI, Eugene Vitvitsky, MD, Jianbo Li, PhD, Delos M. Cosgrove III, MD, FACC, Gosta Pettersson, MD, PhD, and Richard A. Grimm, DO, FACC

1480 **Aortic Valve Periprosthetic Leakage: Anatomic Observations and Surgical Results**
Giuseppe De Cicco, MD, Roberto Lorusso, MD, PhD, Andrea Colli, MD, Francesco Nicolini, MD, Claudio Fragnito, MD, Teresa Grimaldi, MD, Bruno Borrello, MD, Alessandro Maria Budillon, MD, Tiziano Gherli, MD, and Cesare Beghi, MD

1486 **Aortic Valve Translocation for Severe Prosthetic Valve Endocarditis: Early Results and Long-Term Follow-Up**
Rémi Nottin, MD, Nawwar Al-Attar, FRCS, Ramzi Ramadan, MD, Alexandre Azmoun, MD, Alexis Therasse, MD, Chokri Kortas, MD, Mohamedou Ly, MD, Amir Bouchachi, MD, and Marie-Laure Bourachot-Montantême, MD

1491 **Valve-Related Events After Aortic Root Replacement With Cryopreserved Aortic Homografts**
Abdullah Kaya, MD, Marc A. Schepens, MD, PhD, Wim J. Morshuis, MD, PhD, Robin H. Heijmen, MD, PhD, Aart Brutel De La Riviere, MD, PhD, and Karl M. Dossche, MD, PhD

1496 **Minimally Invasive Mitral Valve Repair in the Context of Barlow's Disease**
Elisabetta Lapenna, MD, Lucia Torracca, MD, Michele De Bonis, MD, Giovanni La Canna, MD, Giuseppe Crescenzi, MD, and Ottavio Alfieri, MD

1500 **Anterior Leaflet Repair With Patch Augmentation for Mitral Regurgitation**
Matthew A. Romano, MD, Himanshu J. Patel, MD, Francis D. Pagani, MD, PhD, Righard L. Prager, MD, G. Michael Deeb, MD, and Steven F. Bolling, MD

1505 **Endocardial Radiofrequency Ablation During Mitral Valve Surgery: Effect on Cardiac Rhythm, Atrial Size, and Function**
Georges Fayad, MD, Thierry Le Tourneau, MD, PhD, Thomas Modine, MD, Richard Azzaoui, MD, Pierre-Vladimir Ennezat, MD, Christophe Decoene, MD, Ghislaine Deklunder, MD, PhD, and Henri Warembourg, MD

1512 **Surgical Treatment of Ascending Aortic Aneurysms in Patients With Giant Cell Aortitis**
Kenton J. Zehr, MD, Alok Mathur, MD, Thomas A. Orszulak, MD, Charles J. Mullany, MD, and Hartzell V. Schaff, MD

1518 **Pathologic Characteristics and Surgical Indications of Superacute Type A Intramural Hematoma**
Keiji Uchida, MD, Kiyotaka Imoto, MD, PhD, Masato Takahashi, MD, PhD, Shin-ichi Suzuki, MD, PhD, Susumu Isoda, MD, PhD, Mitsugi Sugiyama, MD, PhD, Jiro Kondo, MD, PhD, and Yoshinori Takanashi, MD, PhD

1522 **Release of Glutaraldehyde From an Albumin-Glutaraldehyde Tissue Adhesive Causes Significant In Vitro and In Vivo Toxicity**
Walter Fürst, MS, and Asmita Banerjee

Invited Commentary
Stephen Downing, MD

1530 **C-Reactive Protein is a Risk Indicator for Atrial Fibrillation After Myocardial Revascularization**
Bernard Lo, MD, Rob Fijnheer, MD, PhD, Arno P. Nierich, MD, PhD, Peter Bruins, MD, PhD, and Cor J. Kalkman, MD, PhD

1536 **Minimally Invasive Left Ventricular Epicardial Lead Placement: Surgical Techniques for Heart Failure Resynchronization Therapy**
José L. Navia, MD, Fernando A. Atik, MD, Richard A. Grimm, MD, Mario Garcia, MD, Pablo Ruda Vega, MD, Ulf Myhre, MD, Randall C. Starling, MD, Bruce L. Wilkoff, MD, David Martin, MD, MPH, Penny L. Houghtaling, MS, Eugene H. Blackstone, MD, and Delos M. Cosgrove, MD

1545 **Aprotinin Inhibits Protease-Dependent Platelet Aggregation and Thrombosis**
Tanveer A. Khan, MD, Cesario Bianchi, MD, PhD, Pierre Voisine, MD, Jennifer Sandmeyer, BS, Jun Feng, MD, PhD, and Frank W. Sellke, MD

1551 **Cardiac Surgery in Patients With Liver Cirrhosis**
Cheng-Hsin Lin, MD, Fang-Yue Lin, MD, Shoei-Shen Wang, MD, Hsi-Yu Yu, MD, and Ron-Bin Hsu, MD

1555 **Daily Assessment of Organ Dysfunction and Survival in Intensive Care Unit Cardiac Surgical Patients**
Khosro Hekmat, MD, Axel Kroener, MD, Hartmut Stuetzer, MD, Robert H. G. Schwinger, MD, Sandra Kampe, MD, Gerardus B. W. E. Bennink, MD, and Uwe Mehlhorn, MD

1563 **Late Outcome After Stenting or Coronary Artery Bypass Surgery for the Treatment of Multivessel Disease: A Single-Center Matched-Propensity Controlled Cohort Study**
Ron T. van Domburg, PhD, Johanna J. M. Takkenberg, MD, PhD, Leo J. Noordzij, MD, Francesco Saia, PhD, Lex A. van Herwerden, MD, PhD, Patrick W. J. C. Serruys, MD, PhD, and Ad J. J. C. Bogers, MD, PhD

1570 **Effect of Risk-Adjusted Diabetes on Mortality and Morbidity After Coronary Artery Bypass Surgery**
Chandrasahekhar Kubal, MRCS, Arun K. Srinivasan, FRCS, Antony D. Grayson, BS, Brian M. Fabri, FRCS(Ed), and John A. C. Chalmers, FRCS

1577 **Functional Renal Outcome in On-Pump and Off-Pump Coronary Revascularization: A Propensity-Based Analysis**
Arjuna Weerasinghe, PhD, FRCS, Thanos Athanasiou, PhD, FECTS, Sharif Al-Ruzzeh, FRCS, Roberto Casula, FECTS, Paris P. Tekkis, MD, FCRS, Mohammed Amrani, FECTS, Prakash Punjabi, FRCS, Kenneth Taylor, FRCS, Rex Stanbridge, FRCS, and Brian Glenville, FRCS

1584 **Patient-Reported Outcome After Randomization to On-Pump Versus Off-Pump Coronary Artery Surgery**
Lars Mathisen, RN, MSN, Marit H. Andersen, RN, MSN, Per K. Hol, MD, Per S. Lingaas, MD, Runar Lundblad, MD, PhD, Kjell A. Rein, MD, PhD, Tor I. Tønnessen, MD, PhD, Bjørn E. Mørk, MS, Jan-Ludvig Svennevig, MD, PhD, Astrid K. Wahl, RN, PhD, Berit R. Hanestad, RN, PhD, and Erik Fosse, MD, PhD

1590 **Robotic Assisted Multivessel Minimally Invasive Direct Coronary Artery Bypass With Port-Access Stabilization and Cardiac Positioning: Paving the Way for Outpatient Coronary Surgery?**
Valavanur A. Subramanian, MD, Nilesh U. Patel, MD, Nirav C. Patel, MD, FRCS(C-Th), and Didier F. Loulmet, MD

1597 **Brain Injury and Neuropsychological Outcome After Coronary Artery Surgery Are Affected by Complement Activation**
Christophe Baufreton, MD, PhD, Philippe Allain, PhD, Alain Chevailler, MD, PhD, Frédérique Etcharry-Bouyx, MD, PhD, Jean Jacques Corbeau, MD, Didier Legall, PhD, and Jean Louis de Brux, MD

1606 **Gastroepiploic Artery Minimally Invasive Grafting in Reoperative Patients With Patent Mammaries**
David Glineur, MD, Philippe Noirhomme, MD, Alain Poncelet, MD, Claude Hanet, MD, Parla Astarci, MD, Robert Verhelst, MD, Pierre Yves Etienne, MD, and Gebrine El Khoury, MD

1610 **Outcomes of Coronary Artery Bypass Grafting in Patients With Connective Tissue Diseases**
Thomas J. Birdas, MD, Jeffrey T. Landis, BS, David Haybron, MD, Debbie Evers, BSN, Pavlos K. Papasavas, MD, and Philip F. Caushaj, MD

1615 **Preoperative Methylene Blue Administration in Patients at High Risk for Vasoplegic Syndrome During Cardiac Surgery**
Ertuğrul Özal, MD, Erkan Kuralay, MD, Vedat Yildirim, MD, Selim Kilic, MD, Cengiz Bolcal, MD, Nezihi Kücükarslan, MD, Celalettin Günay, MD, Ufuk Demirkilic, MD, and Harun Tatar, MD

1620 **Cyclosporin A But Not FK-506 Protects Against Dopamine-Induced Apoptosis in the Stunned Heart**
Meena Nathan, MD, Ingeborg Friehs, MD, Yeong-Hoon Choi, MD, Douglas B. Cowan, PhD, Hung Cao-Danh, PhD, Francis X. McGowan, MD, and Pedro J. del Nido, MD

1627 **Control-Released Hepatocyte Growth Factor Prevents the Progression of Heart Failure in Stroke-Prone Spontaneously Hypertensive Rats**
Genichi Sakaguchi, MD, PhD, Keiichi Tambara, MD, Yutaka Sakakibara, MD, PhD, Makoto Ozeki, MEng, Masaya Yamamoto, PhD, Goditha Premaratne, MD, Xue Lin, MD, Koji Hasegawa, MD, PhD, Yasuhiko Tabata, PhD, Kazunobu Nishimura, MD, PhD, and Masashi Komeda, MD, PhD

1635 **Initial Application in The STS Congenital Database of Complexity Adjustment to Evaluate Surgical Case Mix and Results**
Jeffrey Phillip Jacobs, MD, Francois G. Lacour-Gayet, MD, Marshall Lewis Jacobs, MD, David Robinson Clarke, MD, Christo I. Tchervenkov, MD, J. William Gaynor, MD, Thomas L. Spray, MD, Bohdan Maruszewski, MD, PhD, Giovanni Stellin, MD, Jay Gould, PhD, Rachel S. Dokholyan, MPH, Eric D. Peterson, MD, MPH, Martin J. Elliott, FRCS, and Constantine Mavroudis, MD

1650 **Neonates With Aortic Coarctation and Cardiogenic Shock: Presentation and Outcomes**
Assaf K. Fesseha, Benjamin W. Eidem, MD, Daniel J. Dibardino, MD, Stanley G. Cron, MSPH, E. Dean McKenzie, MD, Charles D. Fraser, Jr, MD, Jack F. Price, MD, Anthony C. Chang, MD, and Antonio R. Mott, MD

1656 **Late Left Pulmonary Artery Stenosis After the Norwood Procedure is Prevented by a Modification in Shunt Construction**
David P. Bichell, MD, John J. Lamberti, MD, Glenn J. Pelletier, MD, Cynthia Hoecker, MD, Mark W. Cocalis, MD, Frank F. Ing, MD, and Richard A. Jensen, MD

Invited Commentary
Francois Lacour-Gayet, MD

1662 **Is There a Role for Mechanical Valved Conduits in the Pulmonary Position?**
Felix Haas, MD, Christian Schreiber, MD, Jürgen Hörer, MD, Martin Kostolny, MD, Klaus Holper, MD, and Rüdiger Lange, MD

Invited Commentary
Joseph A. Dearani, MD

1669 **Risk Factors, Dynamics, and Cutoff Values for Homograft Stenosis After the Ross Procedure**
Horea Feier, MD, Frederic Collart, MD, Olivier Ghez, MD, Alberto Riberi, MD, Thierry Caus, MD, Bernard Kreitmann, MD, and Dominique Metras, MD

Invited Commentary
Roger J. F. Baskett, MD

ORIGINAL ARTICLES: GENERAL THORACIC

1676 **Airway Obstruction Owing to Tracheopathia Osteoplastica: Treatment by Linear Tracheoplasty**
Hermes C. Grillo, MD, and Cameron D. Wright, MD

1682 **Problems in Diagnosis and Surgical Management of Clinical N1 Non-small Cell Lung Cancer**
Shun-ichi Watanabe, MD, Hisao Asamura, MD, Kenji Suzuki, MD, and Ryosuke Tsuchiya, MD

1686 **Surgical Resection for Residual N2 Disease After Induction Chemotherapy**
Jeffrey L. Port, MD, Robert J. Korst, MD, Paul C. Lee, MD, Matthew A. Levin, BS, David E. Becker, MA, Roger Keresztes, MD, and Nasser K. Altorki, MD

1691 **Resection of Locally Advanced (T4) Non-Small Cell Lung Cancer With Cardiopulmonary Bypass**
Marc de Perrot, MD, Elie Fadel, MD, Sacha Mussot, MD, Angela de Palma, MD, Alain Chapelier, MD, and Philippe Dartevelle, MD

Invited Commentary
Ryosuke Tsuchiya, MD

1698 **Prediction Rule for Atrial Fibrillation After Major Noncardiac Thoracic Surgery**
Rod S. Passman, MD, MSCE, Daniel S. Gingold, BS, David Amar, MD, Donald Lloyd-Jones, MD, ScM, Charles L. Bennett, MD, PhD, Hao Zhang, MD, and Valerie W. Rusch, MD

1704 **Inflammatory Gene Polymorphisms Influence Risk of Postoperative Morbidity After Lung Resection**
Andrew D. Shaw, MB, Ara A. Vaporciyan, MD, Xifeng Wu, MD, Terri M. King, PhD, Margaret R. Spitz, MD, Joe B. Putnam, MD, and Burton F. Dickey, MD

1711 **Surgery for Pulmonary Nodules in Breast Cancer Patients**
Fumihiro Tanaka, MD, PhD, Mio Li, MD, Nobuharu Hanaoka, MD, PhD, Toru Bando, MD, PhD, Tatsuo Fukuse, MD, PhD, Seiki Hasegawa, MD, PhD, and Hiromi Wada, MD, PhD

Invited Commentary
Peter Goldstraw, FRCS

1716 **Differential Response to Preoperative Chemoradiation and Surgery in Esophageal Adenocarcinomas Based on Presence of Barrett's Esophagus and Symptomatic Gastroesophageal Reflux**
Banke Agarwal, MD, Stephen G. Swisher, MD, Jaffer Ajani, MD, Kaitlyn Kelly, Ritsuko R. Komaki, MD, Emad Abu-Hamda, MD, Arlene M. Correa, PhD, and Jack A. Roth, MD

1724 **Blood Flow Responses in the Peristernal Thoracic Wall During Vacuum-Assisted Closure Therapy**
Angelica Wackenfors, MS, Ronny Gustafsson, MD, Johan Sjögren, MD, Lars Algotsson, MD, PhD, Richard Ingemansson, MD, PhD, and Malin Malmsjö, MD, PhD

Invited Commentary
Marisa De Feo, MD, PhD

NEW TECHNOLOGY

1732 **First Clinical Experience With the HEARTSTRING, a Device for Proximal Anastomoses in Coronary Surgery**
Calin Vicol, MD, Martin Oberhoffer, MD, Georg Nollert, MD, Sandra Eifert, MD, Peter Boekstegers, MD, Bernd Wintersperger, MD, and Bruno Reichart, MD

Invited Commentary
David Fullerton, MD

1738 **Early Clinical Results With a Magnetic Connector for Distal Coronary Artery Anastomoses**
Calin Vicol, MD, Sandra Eifert, MD, Martin Oberhoffer, MD, Peter Boekstegers, MD, Andreas Knez, MD, Frank Christ, MD, and Bruno Reichart, MD

Invited Commentary
Alan P. Kypson, MD, and W. Randolph Chitwood, Jr, MD

1744 **Troubleshooting Video-Assisted Thoracic Surgery Lobectomy**
Todd L. Demmy, MD, Ted A. James, MD, Scott J. Swanson, MD, Robert J. McKenna, Jr, MD, and Thomas A. D'Amico, MD

Invited Commentary
Anthony P. C. Yim, MD

CASE REPORTS

e-Only Content

e29 **Nontraumatic Chest Wall Systemic-to-Pulmonary Artery Fistula**
Hideki Itano, MD, Sang Lee, MD, David M. Kulick, MD, Mark D. Iannettoni, MD, David M. Williams, MD, and Mark B. Orringer, MD

e32 **Trans-Arterial Infusion Chemotherapy for Recurrence of Pleural Dissemination After Thymectomy**
Yasuji Terada, MD, Takatoyo Kambayashi, MD, Satomi Okahashi, MD, Tetsuo Noguchi, MD, Kunihiko Kamakari, MD, and Soichi Kubo, MD

1754 **Covered Stent Treatment of Right Pulmonary Artery Stenosis and Waterston Shunt**
Ingo Daehnert, MD, Michael Wiener, MD, and Martin Kostelka, MD

1755 **Histopathologic Findings in a Novel Decellularized Pulmonary Homograft: An Autopsy Study**
Friedhelm Sayk, MD, Inge Bos, MD, Ute Schubert, BS, Thilo Wedel, MD, and Hans-H. Sievers, MD

1758 **Aortic Atresia and Type B Interrupted Aortic Arch: Diagnosis by Physiologic Cerebral Monitoring**
Daniel J. DiBardino, MD, Jeffrey S. Heinle, MD, Dean A. Andropoulos, MD, Caroline D. Kerr, David L. S. Morales, MD, and Charles D. Fraser, Jr, MD

1760 **Acute Occlusion of Left Coronary Ostium Associated with Congenital Quadricuspid Aortic Valve**
Masato Mutsuga, MD, Shuji Tamaki, MD, PhD, Yukifusa Yokoyama, MD, PhD, Noriyuki Kato, MD, June Yokote, MD, and Norihisa Ohata, MD

1761 **Surgical Repair and Stent Positioning for Type A Acute Aortic Dissection: A Step Forward?**
Stefano Saccani, MD, Marzio Busi, MD, Claudio Fragnito, MD, Andrea Agostinelli, MD, Bruno Borrello, MD, Francesco Nicolini, MD, and Tiziano Gherli, MD

1764 **Interventricular Septal Hematoma in Ventricular Septal Defect Patch Closure**
Manuela Drago, MD, Gianfranco Butera, MD, PhD, Alessandro Giamberti, MD, Mariella Lucente, MD, and Alessandro Frigiola, MD

1765 **Surgical Treatment of a Huge Cavernous Hemangioma Surrounding the Right Coronary Artery**
Riza Turkoz, MD, Oner Gulcan, MD, Levent Oguzkurt, MD, Hakan Atalay, MD, Bulent Bolat, MD, and Alpay Sezgin, MD

1767 **Deep Hypothermia and Circulatory Arrest for Surgery of High Extracranial Internal Carotid Aneurysm**
Eduardo Tebar Botí, MD, Iván Martín González, MD, José Ángel Bahamonde, MD, Juan Martínez León, MD, PhD, and Eduardo Otero Coto, MD, PhD

1769 **Avoidable Errors in Cardiac Surgery: Anastomosis of the Left Internal Mammary Artery to a Vein**
Deepak Banerjee, MD, Daniel Fusco, MD, Jeffrey Green, MD, George Eapen, MD, and Vigneshwar Kasirajan, MD

1771 **Growth of a Left Atrial Sarcoma Followed by Resection and Autotransplantation**
Sherif S. Iskander, MD, Sherif F. Nagueh, MD, Mary L. Ostrowski, MD, and Michael J. Reardon, MD

1774 **Therapeutic Management of Broncholithiasis**
Franck Menivale, MD, Gaëtan Deslee, MD, Hervé Vallerand, MD, Olivier Toubas, MD, Gonzague Delepine, MD, Pierre José Guillou, MD, and François Lebargy, PhD, MD

1776 **Congenital Bronchoesophageal Fistula in a Patient With Crohn's Disease: A Cautionary Tale**
Mohan P. Devbhandari, FRCS, Lucia Raco, MD, Mark T. Hendrickse, FRCP, and Andrew J. Duncan, FRCS CTh

1778 **Left Pneumonectomy for Lung Cancer After Correction of Contralateral Partial Anomalous Pulmonary Venous Return**
Hiroyuki Sakurai, MD, Haruhiko Kondo, MD, Akihiko Sekiguchi, MD, Yoshihiro Naruse, MD, Haruo Makuuchi, MD, Kenji Suzuki, MD, Hisao Asamura, MD, and Ryosuke Tsuchiya, MD

1780 **Videopericardioscopy Using Endothoracic Sonography for Lung Cancer Staging**
Kiyoshi Ohno, MD, Tomoki Utsumi, MD, Yoshiaki Sasaki, MD, and Yuko Suzuki, MD

1782 **Iris Metastasis of Esophageal Cancer**
Yoshinobu Ichiki, MD, Masaru Morita, MD, Koichi Yano, MD, Kenji Sugio, MD, Kosei Yasumoto, MD, and Naofumi Hirose, MD

IMAGES IN CARDIOTHORACIC SURGERY

1785 **Three-Dimensional Demonstration of the Artery of Adamkiewicz With Contrast-Enhanced Magnetic Resonance Angiography**
Kunihiro Yoshioka, MD, Hiroyuki Niinuma, MD, Tomoko Kawakami, MD, Takayuki Nakajima, MD, Kohei Kawazoe, MD, and Shigeru Ehara, MD

1786 **Cardiac Fibroma**
Gokhan Ipek, MD, Denyan Mansuroglu, MD, Atilla Omeroglu, MD, Suat Nail Omeroglu, MD, and Ilker Mataraci, MD

HOW TO DO IT

1787 **Repair of Aortic Leaflet Prolapse: The "Sliding Leaflet Technique"**
Massimo Massetti, MD, Eugenio Neri, MD, Dimitrios Buklas, MD, Gerard Babatasi, MD, Olivier Le Page, MD, Jean Louis Gerard, MD, and André Khayat, MD

1790 **Assembly and Deployment of a Branched Arch Stent Graft Using the Transaortic Approach**
Toshihiko Shibata, MD, Hidekazu Hirai, MD, Toshihiro Fukui, MD, Takanobu Aoyama, MD, and Shigefumi Suehiro, MD

1793 **Effective Use of Fibrin Glue for Acute Aortic Dissection**
Takayuki Nakajima, MD, Kohei Kawazoe, MD, Hiroshi Izumoto, MD, Tsuyoshi Kataoka, MD, and Toshinobu Kazui, MD

1795 **Left Pulmonary Arterioplasty—Extended End-to-End Anastomosis**
Yoshihiro Oshima, MD, Doi Yoshiro, MD, Chikashi Shimazu, MD, and Takuro Misaki, MD

REVIEWS

1797 **Development of the Atrioventricular Valves: Clinicomorphological Correlations**
Mazyar Kanani, MRCS, Antoon F. M. Moorman, PhD, Andrew C. Cook, PhD, Sandra Webb, PhD, Nigel A. Brown, PhD, Wouter H. Lamers, MD, PhD, and Robert H. Anderson, MD, FRCPath

1805 **Internal Thoracic Artery: To Skeletonize or Not to Skeletonize?**
Shahzad G. Raja, MRCS, and Gilles D. Dreyfus, MD, PhD

STS/AATS/SCAI POSITION STATEMENT

1812 **The Clinical Development of Percutaneous Heart Valve Technology: A Position Statement of The Society of Thoracic Surgeons (STS), the American Association for Thoracic Surgery (AATS), and the Society for Cardiovascular Angiography and Interventions (SCAI)**
Thomas A. Vassiliades, Jr, MD, Peter C. Block, MD, Lawrence H. Cohn, MD, David H. Adams, MD, Jeffrey S. Borer, MD, Ted Feldman, MD, David R. Holmes, MD, Warren K. Laskey, MD, Bruce W. Lytle, MD, Michael J. Mack, MD, and David O. Williams, MD

OUR SURGICAL HERITAGE

1819 **A Tribute to Giancarlo Rastelli**
Igor E. Konstantinov, MD, PhD, Felice Rosapepe, MD, PhD, Joseph A. Dearani, MD, Vladimir V. Alexi-Meskishvili, MD, PhD, and Jia Li, MD, PhD

CORRESPONDENCE

1824 **Optimal Surgical Repair for Double Outlet Right Ventricle and Intact Ventricular Septum**
Dario E. Troise, MD, Leonardo Ranieri, MD, and Paolo M. Arciprete, MD

Reply
Carlo Pace Napoleone, MD

1825 **Left Heart Bypass During Descending Thoracic Aneurysm Repair**
Alain G. Verdant, MD, FRCS(C)

Reply
Joseph S. Coselli, MD

1826 **On Decreasing Distal Endothelial Damage After Intracoronary Shunt Insertion**
Roland G. Demaria, MD, PhD, and Louis P. Perrault, MD, PhD

1826 **Mitral Valve Repair**
Arkalgud Sampath Kumar, MS, MCh

1826 **Repair of Ebstein's Anomaly**
Sylvain Marc Chauvaud, MD

Reply
Qing-yu Wu, MD

1827 **Patent Ductus Arteriosus in Neonates and New Approaches**
Emmanuel Villa, MD, Ennio Mazzera, MD, Domenico Galetta, MD, and Roberto M. Di Donato, MD

Reply
Walter V. A. Vicente, MD, PhD

1828 **Intrapleural Bupivacine for Postthoracotomy Analgesia**
C S Pramesh, MS, FRCS, Rajesh C Mistry, MS, Gouri H Pantvaidya, MS, MRCS, and Vikram R Ghanekar, MS

REVIEW OF RECENT BOOKS

1829 **Modern Mitral Valve Repair: Echocardiographic Interpretations and Surgical Strategies by Choi-Keung Ng, Joachim Nesser, Christian Punzengruber, Natesa G. Pandian, Bijoy Khandheria, Peter Hartl, and Otmar Pachinger**
A. Marc Gillinov, MD

ANNOUNCEMENTS

A-30 **Information for Authors**

A-35 **Guidelines for Reviewers**

A-37 **Conditions for Publication Form**

A-39 **Events of Interest**

1490 **Online Discussion Forum**

1511 **Notice From the American Board of Thoracic Surgery Regarding Trainees and Candidates for Certification Who Are Called to Military Service Related to the War on Terrorism**

1517 **Requirements for Recertification/Maintenance of Certification in 2005**

1544 **Notice From the American Board of Thoracic Surgery**

1550 **The Thoracic Surgery Foundation for Research and Education**

1583 **The Society of Thoracic Surgeons Policy Action Center**

1634 **Southern Thoracic Surgical Association: Fifty-Second Annual Meeting**

1703 The Society of Thoracic Surgeons: Forty-Second Annual Meeting

1710 Member and Individual Subscriber Access to the Online *Annals*

A-43–6 The Thoracic Surgery Foundation for Research and Education

A-47 2006 Annual Meeting of The Society of Thoracic Surgeons, Call for Abstracts

A-48 Information About Membership in The Society of Thoracic Surgeons

A-49 Classified Advertisements

A-53 Index to Advertisers

Number 6 June 2005

EDITORIAL

1831 **Cardiovascular Tissue Engineering Therapy: So Near, So Far?**
Gilbert H. L. Tang, MD, Shafie Fazel, MD, MS, Richard D. Weisel, MD, Glen S. Van Arsdell, MD, and Ren-Ke Li, MD, PhD

ORIGINAL ARTICLES: GENERAL THORACIC

1834 **Adjuvant Radiation of Stage III Thymoma: Is It Necessary?**
Abeel A. Mangi, MD, John C. Wain, MD, Dean M. Donahue, MD, Hermes C. Grillo, MD, Douglas J. Mathisen, MD, and Cameron D. Wright, MD

1840 **Advanced Stage Thymomas and Thymic Carcinomas: Results of Multimodality Treatments**
Marco Lucchi, MD, Marcello Carlo Ambrogi, MD, Leonardo Duranti, MD, Fulvio Basolo, MD, Gabriella Fontanini, MD, Carlo Alberto Angeletti, MD, and Alfredo Mussi, MD

Invited Commentary
Giuliano Maggi, MD, and Enrico Ruffini, MD

1845 **Thoracic Epidural Versus Intercostal Nerve Catheter Plus Patient-Controlled Analgesia: A Randomized Study**
James D. Luketich, MD, Stephanie R. Land, PhD, Erin A. Sullivan, MD, Miguel Alvelo-Rivera, MD, Julie Ward, RN, BSN, Percival O. Buenaventura, MD, Rodney J. Landreneau, MD, Lee A. Hart, RN, BSN, and Hiran C. Fernando, MD

1851 **Delayed Referral and Gram-Negative Organisms Increase the Conversion Thoracotomy Rate in Patients Undergoing Video-Assisted Thoracoscopic Surgery for Empyema**
Didier Lardinois, MD, Michael Gock, MD, Edgardo Pezzetta, MD, Christian Buchli, MD, Valentin Rousson, PhD, Markus Furrer, MD, and Hans-Beat Ris, MD

Invited Commentary
Rudy Lackner, MD

1857 **Surgical Results for Chronic Empyema Using Omental Pedicled Flap: Long-Term Follow-Up Study**
Yoshitomo Okumura, MD, Shin-ichi Takeda, MD, Hiroki Asada, MD, Masayoshi Inoue, MD, Noriyoshi Sawabata, MD, Hiroyuki Shiono, MD, and Hajime Maeda, MD

1862 **The Findings of Surgical Lung Biopsy in HIV Patients in the Era of Highly Active Antiretroviral Therapy**
Ashfaq Ahmad, MD, Shafeeq Khan, MD, and Ayman O. Soubani, MD

1866 **Right Upper Lobe Venous Drainage Posterior to the Bronchus Intermedius: Preoperative Identification by Computed Tomography**
Katsuyuki Asai, MD, Norikazu Urabe, MD, PhD, Kiyoshige Yajima, MD, Kazuya Suzuki, MD, PhD, and Teruhisa Kazui, MD, PhD

1872 **Successful Conservative Management in Iatrogenic Tracheobronchial Injury**
Abel Gómez-Caro Andrés, MD, Francisco Javier Moradiellos Díez, MD, Pilar Ausín Herrero, MD, Vicente Díaz-Hellín Gude, MD, Emilio Larrú Cabrero, MD, PhD, Eduardo de Miguel Porch, MD, and José Luis Martín De Nicolás, MD

Invited Commentary
John Calhoon, MD, Luis F. Angel, MD, Daniel Martinez, MD, and Scott B. Johnson, MD

1879 **Comparison of Open Versus Bedside Percutaneous Dilatational Tracheostomy in the Cardiothoracic Surgical Patient: Outcomes and Financial Analysis**
Matthew D. Bacchetta, MD, MBA, Leonard N. Girardi, MD, Edward J. Southard, BS, Charles A. Mack, MD, Wilson Ko, MD, Anthony J. Tortolani, MD, Karl H. Krieger, MD, O. Wayne Isom, MD, and Leonard Y. Lee, MD

1886 **Reconstruction of Recurrent Laryngeal Nerve With Involvement by Metastatic Node in Esophageal Cancer**
Shoji Natsugoe, MD, Hiroshi Okumura, MD, Masataka Matsumoto, MD, Sumiya Ishigami, MD, Tetsuhiro Owaki, MD, Shizuo Nakano, MD, and and Takashi Aikou, MD

1890 **Pharyngocolonic Anastomosis for Esophageal Reconstruction in Corrosive Esophageal Stricture**
Yao-Guang Jiang, MD, Yi-Dan Lin, MD, Ru-Wen Wang, MD, Jing-Hai Zhou, MD, Tai-Qian Gong, MD, Zheng Ma, MD, Yun-Ping Zhao, MD, and Qun-You Tan, MD

ORIGINAL ARTICLES: CARDIOVASCULAR

1895 **Ischemic Mitral Regurgitation: Revascularization Alone Versus Revascularization and Mitral Valve Repair**
Yong-Hwan Kim, MD, PhD, Lawrence S. C. Czer, MD, Harmik J. Soukiasian, MD, Michele De Robertis, RN, Kathy E. Magliato, MD, Carlos Blanche, MD, Sharo S. Raissi, MD, James Mirocha, MS, Robert J. Siegel, MD, Robert M. Kass, MD, and Alfredo Trento, MD

1902 **EuroSCORE Predicts Long-Term Mortality After Heart Valve Surgery**
Ioannis K. Toumpoulis, MD, Constantine E. Anagnostopoulos, MD, Stavros K. Toumpoulis, MD, Joseph J. DeRose, Jr, MD, and Daniel G. Swistel, MD

Invited Commentary
Thomas L. Higgins, MD, MBA

1909 **Low-Dose International Normalized Ratio Self-Management: A Promising Tool to Achieve Low Complication Rates After Mechanical Heart Valve Replacement**
Heinrich Koertke, MD, Armin Zittermann, PhD, Kazutomo Minami, MD, Gero Tenderich, MD, Otto Wagner, Mahmoud El-Arousy, MD, Arno Krian, MD, Juergen Ennker, MD, Uwe Taborski, MD, Wolf Peter Klövekorn, MD, Rainer Moosdorf, MD, Werner Saggau, MD, Michiel Morshuis, MD, Jan Koerfer, MD, Dirk Seifert, MD, and Reiner Koerfer, MD

1915 **Small "Functional" Size after Mechanical Aortic Valve Replacement: No Risk in Young to Middle-Age Patients**
Alfonso Penta de Peppo, MD, Jacob Zeitani, MD, Paolo Nardi, MD, Giuseppe Iaci, MD, Patrizio Polisca, MD, Ruggero De Paulis, MD, and Luigi Chiariello, MD

1921 **Aortic Valve Repair for Rheumatic Aortic Valve Disease**
Sachin Talwar, MCh, Cheemalapati Saikrishna, MS, Anita Saxena, DM, and Arkalgud Sampath Kumar, MCh

1926 **Mitral Valve Replacement With and Without Chordal Preservation in a Rheumatic Population: Serial Echocardiographic Assessment of Left Ventricular Size and Function**
Ujjwal K. Chowdhury, MCh, A. Sampath Kumar, MCh, Balram Airan, MCh, Dinesh Mittal, MS, K. Ganapathy Subramaniam, MS, Ram Prakash, DM, Sandeep Seth, DM, Rajvir Singh, MSc(Stat), PhD, and Panangipalli Venugopal, MCh

1934 **10-Year Experience With the ATS Mechanical Valve in the Mitral Position**
Constantin Stefanidis, MD, Albert M. Nana, MD, Didier De Cannière, MD, PhD, Martine Antoine, MD, Jean-Luc Jansens, MD, Chi-Hoang Huynh, MD, and Jean-Louis Le Clerc, MD

1939 **Long-Term Result of 1144 CarboMedics Mechanical Valve Implantations**
Chang Hyun Kang, MD, Hyuk Ahn, MD, Kyung Hwan Kim, MD, and Ki-Bong Kim, MD

1945 **Newly Developed Aortic Dissection in the Abdominal Aorta After Femoral Arterial Perfusion**
Kazumasa Orihashi, MD, Taijiro Sueda, MD, Kenji Okada, MD, and Katsuhiko Imai, MD

1950 **Long-Term Results of Surgical Coarctectomy in the Adolescent and Young Adult With 18-Year Follow-Up**
John Alfred Carr, MD, Joseph J. Amato, MD, and Robert S. D. Higgins, MD

1957 **Transferring Diagnosis Versus Actual Diagnosis at a Center for Thoracic Aortic Disease**
Thomas M. Beaver, MD, Francis N. Herrbold, MD, Philip J. Hess, Jr,, MD, Charles T. Klodell, MD, and Tomas D. Martin, MD

1961 **Is Hospital Procedure Volume a Reliable Marker of Quality for Coronary Artery Bypass Surgery? A Comparison of Risk and Propensity Adjusted Operative and Midterm Outcomes**
Anoar Zacharias, MD, Thomas A. Schwann, MD, Christopher J. Riordan, MD, Samuel J. Durham, MD, Aamir Shah, MD, Thomas J. Papadimos, MD, Milo Engoren, MD, and Robert H. Habib, PhD

Invited Commentary
Jeffrey P. Gold, MD

1970 **Determination of Histopathologic Risk Factors for Postoperative Atrial Fibrillation in Cardiac Surgery**
Koray Ak, MD, Serdar Akgun, MD, Tulay Tecimer, MD, Cemil Selim Isbir, MD, Ali Civelek, MD, Atike Tekeli, MD, Sinan Arsan, MD, and Adnan Cobanoglu, MD

1976 **Effects of Obesity and Small Body Size on Operative and Long-Term Outcomes of Coronary Artery Bypass Surgery: A Propensity-Matched Analysis**
Robert H. Habib, PhD, Anoar Zacharias, MD, Thomas A. Schwann, MD, Christopher J. Riordan, MD, Samuel J. Durham, MD, and Aamir Shah, MD

1987 **Midterm Angiographic Patency and Vasoreactive Profile of Proximal Versus Distal Radial Artery Grafts**
Mario Gaudino, MD, Giuseppe Nasso, MD, Carlo Canosa, MD, Franco Glieca, MD, Andrea Salica, MD, Francesco Alessandrini, MD, and Gianfederico Possati, MD

Invited Commentary
Derek D. Muehrcke, MD, FACS

1991 **Disruption of Graft Endothelium Correlates With Early Failure After Off-Pump Coronary Artery Bypass Surgery**
Jeffrey V. Manchio, BS, Junyan Gu, MD, Linda Romar, RN, James Brown, MD, James Gammie, MD, Richard N. Pierson III, MD, Bartley Griffith, MD, and Robert S. Poston, MD

1999 **Coronary Endarterectomy: Impact on Morbidity and Mortality When Combined With Coronary Artery Bypass Surgery**
Ravindranath Tiruvoipati, FRCS, Mahmoud Loubani, MD, FRCSI, Mauro Lencioni, MRCP, Shilajit Ghosh, FRCS(CTh), Peter W. Jones, PhD, and Ramesh L. Patel, MD, FRCS(CTh)

2004 **Do Coronary Bypass Graft Flows Differ Between On-Pump and Off-Pump Operations?**
Yves A. G. Louagie, MD, PhD, Jacques Jamart, MD, and André Gruslin, ECCP

2013 **Optimizing Saphenous Vein Site Selection Using Intraoperative Venous Duplex Ultrasound Scanning**
Joseph D. Cohn, MD, FACS, and Keith F. Korver, MD, FACS

2018 **Saphenous Vein Harvest With SaphLITE System Versus Conventional Technique: A Prospective, Randomized Study**
Shaohua Wang, MD, Hao Tang, MD, Vikki Wilkinson, BS, Trish Lukat, BS, Elliot T. Gelfand, MD, Arvind Koshal, MD, Dennis L. Modry, MD, John C. Mullen, MD, Chunhai Hao, MD, and Barry A. Finegan, MD

2024 **Renal Function After Cardiac Surgery Off- Versus On-Pump Coronary Artery Bypass: Analysis Using the Cockroft-Gault Formula for Estimating Creatinine Clearance**
George Asimakopoulos, FRCS, PhD, A. Paul Karagounis, FRCS, Oswaldo Valencia, MD, Nicholas Alexander, MRCS, Mohamed Howlader, FRCS, Mazin A. Sarsam, FRCS, and Venkatachalam Chandrasekaran, FRCS

2032 **Total Leukocyte Control for Elective Coronary Bypass Surgery Does Not Improve Short-Term Outcome**
Robert F. Salamonsen, MD, James Anderson, CCP, Michael Anderson, FJFICM, Michael Bailey, MS, Geoff Magrin, BS, FAIMS, and Franklin Rosenfeldt, FRACS

Invited Commentary
Gabriel S. Aldea, MD

2040 **Cardio Navigation: Planning, Simulation, and Augmented Reality in Robotic Assisted Endoscopic Bypass Grafting**
Volkmar Falk, MD, PhD, Fabien Mourgues, PhD, Louaï Adhami, PhD, Stefan Jacobs, MD, Holger Thiele, MD, Stefan Nitzsche, MD, Friedrich W. Mohr, MD, PhD, and Ève Coste-Manière, PhD

Invited Commentary
W. Randolph Chitwood, Jr, MD

2049 **Clinical Outcome After Poststernotomy Mediastinitis: Vacuum-Assisted Closure Versus Conventional Treatment**
Johan Sjögren, MD, Ronny Gustafsson, MD, PhD, Johan Nilsson, MD, Malin Malmsjö, MD, PhD, and Richard Ingemansson, MD, PhD

2056 **Vascular Endothelial Growth Factor Receptor Upregulation in Response to Cell-Based Angiogenic Gene Therapy**
Terrence M. Yau, MD MS, Guangming Li, MD, Yaoguang Zhang, MD, Richard D. Weisel, MD, Donald A. G. Mickle, MD, and Ren-Ke Li, MD PhD

Invited Commentary
Frank W. Sellke, MD

2065 **Release of Nitric Oxide and Endothelium-Derived Hyperpolarizing Factor (EDHF) in Porcine Coronary Arteries Exposed to Hyperkalemia: Effect of Nicorandil**
Qin Yang, MD, PhD, Rong-Zhen Zhang, MD, PhD, Anthony P. C. Yim, MD, and Guo-Wei He, MD, PhD, DSc

2072 **Obstruction in Modified Blalock Shunts: A Quantitative Analysis With Clinical Correlation**
Winfield J. Wells, MD, R. James Yu, BS, Anjan S. Batra, MD, Hector Monforte, MD, Colleen Sintek, MD, and Vaughn A. Starnes, MD

2077 **Repair of Truncus Arteriosus and Aortic Arch Interruption: Outcome Analysis**
Takashi Miyamoto, MD, Nicodème Sinzobahamvya, MD, Daiva Kumpikaite, MD, Boulos Asfour, MD, Joachim Photiadis, MD, Anne Marie Brecher, MD, and Andreas E. Urban, MD

2083 **The Off-Pump Fontan Procedure by Simply Cross-Clamping the Inferior Caval Vein**
Shuichi Shiraishi, MD, Hideki Uemura, MD, Koji Kagisaki, MD, Masahiro Koh, MD, Toshikatsu Yagihara, MD, and Soichiro Kitamura, MD

2089 **Aortic Translocation in the Management of Transposition of the Great Arteries With Ventricular Septal Defect and Pulmonary Stenosis: Results and Follow-Up**
Victor O. Morell, MD, Jeffrey P. Jacobs, MD, and James A. Quintessenza, MD

2094 **In Vitro Flow Analysis of a Patient-Specific Intraatrial Total Cavopulmonary Connection**
Diane A. de Zélicourt, MS, Kerem Pekkan, PhD, Lisa Wills, BS, Kirk Kanter, MD, Joseph Forbess, MD, Shiva Sharma, MD, Mark Fogel, MD, and Ajit P. Yoganathan, PhD

2103 **Optimal Size of a Monocusp Patch for Reconstruction of a Hypoplastic Pulmonary Root: An Experimental Study in Pigs**
J. F. Matthias Bechtel, MD, Peter E. Lange, MD, and Hans H. Sievers, MD, FETCS

Invited Commentary
Jennifer K. White, MD

NEW TECHNOLOGY

2109 **Paravertebral Block With Ropivacaine 0.5 Versus Systemic Analgesia for Pain Relief After Thoracotomy**
Emmanuel Marret, MD, Bernard Bazelly, MD, Guillaume Taylor, MD, Nadège Lembert, MD, Arnaud Deleuze, MD, Jean-Xavier Mazoit, MD, PhD, and Francis J. Bonnet, MD

Invited Commentary
Richard F. Heitmiller, MD

2115 **Midterm Clinical Experience With Microwave Surgical Ablation of Atrial Fibrillation**
Thomas A. Molloy, MD

2119 **Seeding of Human Endothelial Cells on Valve Containing Aortic Mini-Roots: Development of a Seeding Device and Procedure**
Helmut Gulbins, MD, Anita Pritisanac, MD, Antje Uhlig, Angelika Goldemund, Bruno M. Meiser, MD, Bruno Reichart, MD, and Sabine Daebritz, MD

CASE REPORTS

e-Only Content

e34 **Novel Use of Weerda Laryngoscope to Remove Early Cervical Esophageal Cancer**
Shunji Mizobuchi, MD, PhD, Hiroaki Nakatani, MD, PhD, Toyokazu Akimori, MD, Kenshi Kuge, MD, PhD, Yasunga Okazaki, MD, PhD, and Shiro Sasaguri, MD, PhD

e36 **Transaxillary Aortic Endoclamping for Ascending Aortic Pseudoaneurysm and Dissected Descending Aorta**
Daniele Maselli, MD, and Francesco Musumeci, MD

2127 **Resection of the Entire Left Mainstem Bronchus for an Inflammatory Pseudotumor**
Robert J. Cerfolio, MD, FACS, and Thomas C. Matthews, BS

2128 **A Novel Approach to the Management of Persistent Postpneumonectomy Bronchopleural Fistula**
Brendan P. Madden, MD, FRCP, Abhijat Sheth, FRCS, Timothy B. L. Ho, PhD, MRCP, Gregory R. McAnulty, FRCA, and Richard E. Sayer, FRCS

2130 **A Novel Procedure Using a Tissue Expander for Management of Persistent Alveolar Fistula After Lobectomy**
Yasushi Sakamaki, MD, Tetsuo Kido, MD, Takashi Fujiwara, MD, Katsuki Kuwae, MD, and Motomu Maeda, MD

2132 **Bacterial Pericarditis Due to Group F Streptococci as a Complication of Esophagomediastinal Fistula**
Rajesh Kabra, MD, Karl F. Welke, MD, Kemp H. Kernstine, MD, PhD, F. Jeffrey Field, MD, Brad H. Thompson, MD, Hemender S. Vats, MD, and Neal L. Weintraub, MD

2134 **Successful Treatment of a Posttraumatic Pulmonary Artery Pseudoaneurysm With Coil Embolization**
Ioannis Dimarakis, MD, James A. C. Thorpe, FRCS, and Kostas Papagiannopoulos, MD

2136 **Angiographic Embolization of a Traumatic Pulmonary Pseudoaneurysm**
Ahmad A. Khan, MD, Thomas L. Bauer, MD, Mark J. Garcia, MD, D. Bruce Panasuk, MD, and Allen L. Davies, MD

2138 **Robotic Totally Endoscopic Coronary Artery Bypass and Catheter Based Coronary Intervention in One Operative Session**
Johannes Bonatti, MD, Thomas Schachner, MD, Nikolaos Bonaros, MD, Günther Laufer, MD, Christian Kolbitsch, MD, Josef Margreiter, MD, Patrycja Jonetzko, MD, Otmar Pachinger, MD, and Guy Friedrich, MD

2141 **Localized Pericardial Hematoma Presenting With Acute Hypoxemia**
Paul C. Saunders, MD, Juan B. Grau, MD, Carol L. Chen, MD, Michael Zervos, MD, Charles F. Schwartz, MD, Stephen B. Colvin, MD, Barry P. Rosenzweig, MD, and Greg H. Ribakove, MD

2143 **Sutureless Repair With TachoComb Sheets for Oozing Type Postinfarction Cardiac Rupture**
Akihito Muto, MD, Toshiya Nishibe, MD, Yuka Kondo, MD, Masato Sato, MD, Mituru Yamashita, MD, and Motomi Ando, MD

2145 **Recurrent Embolism in the Course of Marantic Endocarditis**
Andreas Borowski, MD, Ali Ghodsizad, MD, Mathias Cohnen, MD, and Emmeran Gams, MD

2147 **Double Bioprosthetic Valve Replacement in Right-Sided Carcinoid Heart Disease**
Pieter G. Voigt, MD, Jerry Braun, MD, Onno Y. Teng, MD, Dave R. Koolbergen, MD, PhD, Eduard Holman, MD, PhD, Jeroen J. Bax, MD, PhD, Vincent T. H. B. M. Smit, MD, PhD, and Robert A. E. Dion, MD, PhD

2150 **Pulmonary Autograft for Mitral Valve Replacement in Infants: The Ross-Kabbani Operation**
Alessandro Frigiola, MD, Toni Badia, MD, Giuseppe Pomè, MD, Vlasta Fesslova, MD, Maria Giovanna Russo, MD, Carola Iacono, MD, Umberto Squarcia, MD, and Marisa Di Donato, MD

2151 **Beating Heart Off-Pump Myocardial Revascularization in an Infant**
Thomas Walther, MD, PhD, Ingo Dähnert, MD, Herbert Kiefer, MD, Volkmar Falk, MD, PhD, Martin Kostelka, MD, PhD, and Friedrich W. Mohr, MD, PhD

2153 **Mild Supravalvular Aortic Stenosis With Left Coronary Obstruction in a Neonate**
Neville A. G. Solomon, MCh, Kirsten A. Finucane, FRACS, Jonathan R. Skinner, FRACP, and Alan Kerr, FRACS

2155 **Preoperative ECMO in Transposition of the Great Arteries With Persistent Pulmonary Hypertension**
Sophie Jaillard, MD, Emre Belli, MD, Thameur Rakza, MD, Benoit Larrue, MD, Eric Magnenant, MD, Christian Rey, MD, and Laurent Storme, MD

IMAGES IN CARDIOTHORACIC SURGERY

2159 **Complete Replacement of the Supraaortic Branches and of the Aortic Arch Facilitated by a "Reversed" Elephant Trunk**
Thierry P. Carrel, MD, Friedrich S. Eckstein, MD, and Jürg Schmidli, MD

2160 **Abnormal Anterior Papillary Muscle Causing Obstruction of the Left Ventricular Outflow Tract**
Yoshiaki Yamada, MD, Hitoshi Yaku, MD, Yasuyuki Shimada, MD, and Nobuo Kitamura, MD

HOW TO DO IT

2161 **Aortic Homograft for Pulmonary Artery Augmentation in Single Lung Transplantation**
Pablo Rueda, MD, Jose Morales, MD, Enrique Guzman, MD, Jose L. Tellez, MD, Benito A. Niebla, MD, Alejandro Avalos, MD, and Hilda Patiño, MD

2163 **Extracorporeal Membrane Oxygenation With Right Axillary Artery Perfusion**
José L. Navia, MD, Fernando A. Atik, MD, Erik A. Beyer, MD, and Pablo Ruda Vega, MD

2166 **Preoperative Balloon Sealing of a False Ascending Aortic Aneurysm for Safe Redo Sternotomy**
Henning Warnecke, MD, Norbert Franz, MD, Stefan Roethemeyer, MD, Frank Ritter, MD, Alexander T. John, MD, and Joachim Thale, MD

2169 **Independent Ventilation of the Graft and Native Lungs In Vivo After Rat Lung Transplantation**
Marc de Perrot, MD, Syed M. Quadri, MD, Yumiko Imai, MD, and Shaf Keshavjee, MD

REVIEWS

2172 **Role of Thoracic Surgeons in the Diagnosis of Idiopathic Interstitial Lung Disease**
Michael E. Halkos, MD, Anthony A. Gal, MD, Faraz Kerendi, MD, Daniel L. Miller, MD, and Joseph I. Miller, Jr, MD

2180 **Role of Radial Artery Graft in Coronary Artery Bypass Grafting**
Lokeswara Rao Sajja, MCh, Gopichand Mannam, FRCS (CT), Narasinga Rao Pantula, MCh, and Sriramulu Sompalli, MD

REPORT FROM THE WORKFORCE ON EVIDENCE-BASED MEDICINE

2189 **Gender-Specific Practice Guidelines for Coronary Artery Bypass Surgery: Perioperative Management**
Fred H. Edwards, MD, Victor A. Ferraris, MD, PhD, David M. Shahian, MD, Eric Peterson, MD, Anthony P. Furnary, MD, Constance K. Haan, MD, and Charles R. Bridges, MD, ScD

OUR SURGICAL HERITAGE

2195 **The Price Thomas Maneuver for Mobilization of the Pulmonary Artery During Right Pneumonectomy**
Raymond Hurt, FRCS, DHMSA

CORRESPONDENCE

2197 **Present and Future Applications of Radio-Guided Technique**
Davide Sortini, MD, Carlo V. Feo, MD, Paolo Carcoforo, MD, Kostantinos Maravegias, MD, Enzo Pozza, MD, Alberto Liboni, MD, and Andrea Sortini, MD

Reply
Thomas Daniel, MD

2197 **Pulmonary Function May Be Prognostic But Should Not Preclude Lobectomy for Lung Cancer**
C S Pramesh, MS, FRCS, Rajesh C Mistry, MS, Jaiprakash Agarwal, MD, and K Arvind, MS

Reply
Toshihiko Iizasa, MD, and Takehiko Fujisawa, MD

2198 **A Simple Solution to the "Foam" Problem**
Fred Weber, MD, JD

Reply
Alfredo Cesario, MD, Stefano Margaritora, MD, Venanzio Porziella, MD, Kenji Kawamukai, MD, Domenico Galetta, MD, and Pierluigi Granone, MD

2199 **Risk Factors for Respiratory Failure: Differentiating Association and Outcome**
Rochelle M. Wynne, RN, MEd

Reply
Charles C. Canver, MD

2200 **What Are the Real (Non-Intent to Treat—Isolated Sole Therapy) 5-Year Results of Ho:YAG TMR Therapy?**
Anthony P. Furnary, MD

Reply
Keith B. Allen, MD, Robert D. Dowling, MD, and Wayne Richenbacher, MD

2201 **Adverse Effects of Local or Systemic Application of Rapamycin for the Prevention of Neointimal Hyperplasia**
Beat H. Walpoth, MD, FAHA

Reply
Thomas Schachner, MD, Guenther Laufer, MD, and Johannes Bonatti, MD

2202 **Durability of Stentless Bioprostheses for Right Ventricular Outflow Tract Reconstruction**
Ersin Erek, MD, Yusuf Kenan Yalcinbas, MD, and Tayyar Sarioglu, MD

Reply
Kirk R. Kanter, MD

Reply
Serafin Y. Deleon, MD, Jaime G. Dorotan, MD, and Jeffery L. Myers, MD, PhD

REVIEW OF RECENT BOOKS

2204 **The Illustrated Compendium of Prosthetic Heart Valves by Amit Banerjee**
Vincent L. Gott, MD

SUPPLEMENT: 4TH ANNUAL LILLEHEI HEART INSTITUTE SYMPOSIUM CELEBRATING THE 50TH ANNIVERSARY OF OPEN-HEART SURGERY BY CROSS CIRCULATION

S2205 **Title Page**

S2206 **Faculty and Acknowledgements**

S2208 **Introduction**
R. Morton Bolman III, MD

S2210 **Lillehei, Lewis, and Wangensteen: The Right Mix for Giant Achievements in Cardiac Surgery**
Vincent L. Gott, MD

S2214 **Cardiovascular Inventiveness Within the University of Minnesota Department of Surgery**
Richard DeWall, MD

S2217 **Congenital Heart Disease: A Surgical-Historical Perspective**
Aldo Castañeda, MD, PhD

S2221 **Coronary Artery Surgery**
Floyd D. Loop, MD

S2228 **Development of Mechanical Heart Devices**
Michael E. DeBakey, MD

S2232 **Thoracic Surgery Education–Past, Present, and Future**
Fred A. Crawford, Jr, MD

S2238 **Current Status of Cellular Therapy for Ischemic Heart Disease**
Shafie Fazel, MD, MS, Gilbert H. L. Tang, MD, Denis Angoulvant, MD, MS, Massimo Cimini, PhD, Richard D. Weisel, MD, Ren-Ke Li, MD, PhD and Terrence M. Yau, MD, MS

S2248 **Current Status of Endoscopic and Robotic Mitral Valve Surgery**
W. Randolph Chitwood, Jr, MD, FACS

S2254 **Neuroprotection in Cardiac Surgery**
William A. Baumgartner, MD

S2257 **Lillehei Heart Institute Lifetime Achievement Awards**
R. Morton Bolman III, MD

ANNOUNCEMENTS

A-34 **Information for Authors**

A-39 **Guidelines for Reviewers**

A-41 **Conditions for Publication Form**

A-43 **Events of Interest**

1839 **Online Discussion Forum**

1889 **Requirements for Recertification/Maintenance of Certification in 2006**

1901 **Notice From the American Board of Thoracic Surgery Regarding Trainees and Candidates for Certification Who Are Called to Military Service Related to the War on Terrorism**

1933 **Notice From the American Board of Thoracic Surgery**

1960 **The Society of Thoracic Surgeons Policy Action Center**

2017 **Southern Thoracic Surgical Association: Fifty-Second Annual Meeting**

2071 **The Society of Thoracic Surgeons: Forty-Second Annual Meeting**

2076 **Member and Individual Subscriber Access to the Online *Annals***

A-47 **2006 Annual Meeting of The Society of Thoracic Surgeons, Call for Abstracts**

A-48 **Information About Membership in The Society of Thoracic Surgeons**

A-49 **Classified Advertisements**

A-53 **Index to Advertisers**

INDEX TO VOLUME 79

2260 **Author Index**

2297 **Subject Index**